Quarterly Review of PSYCHIATRY AND NEUROLOGY

Winfred Overholser, M.D.
editor-in-chief

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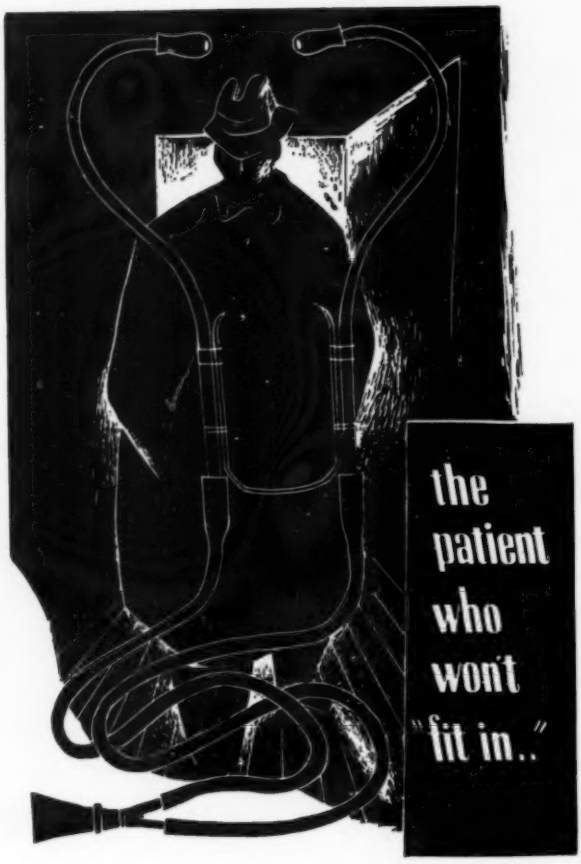

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Quarterly Review of

PSYCHIATRY AND NEUROLOGY

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INCORPORATING INTERNATIONAL RECORD OF PSYCHIATRY AND NEUROLOGY

FOREWORD

The purpose of the QUARTERLY REVIEW OF PSYCHIATRY AND NEUROLOGY is to present promptly brief abstracts, noncritical in character, of the more significant articles in the periodical medical literature of Europe and the Americas.

For readier reference, the abstracts are classified under the following general headings:

PSYCHIATRY

1. Administrative Psychiatry and Legal Aspects of Psychiatry
2. Alcoholism and Drug Addiction
3. Biochemical, Endocrinologic and Metabolic Aspects
4. Clinical Psychiatry
5. Geriatrics
6. Heredity, Eugenics and Constitution
7. Industrial Psychiatry
8. Psychiatry of Childhood
9. Psychiatry and General Medicine
10. Psychiatric Nursing, Social Work and Mental Hygiene
11. Psychoanalysis
12. Psychologic Methods
13. Psychopathology
14. Treatment
    - *a. General Psychiatric Therapy*
    - *b. Drug Therapies*
    - *c. Psychotherapy*
    - *d. The "Shock" Therapies*

NEUROLOGY

1. Clinical Neurology
2. Anatomy and Physiology of the Nervous System
3. Cerebrospinal Fluid
4. Convulsive Disorders
5. Degenerative Diseases of the Nervous System
6. Diseases and Injuries of the Spinal Cord and Peripheral Nerves
7. Electroencephalography
8. Head Injuries
9. Infectious and Toxic Diseases of the Nervous System
10. Intracranial Tumors
11. Neuropathology
12. Neuroradiology
13. Syphilis of the Nervous System
14. Treatment
15. Book Reviews
16. Notes and Announcements

In fields which are developing as rapidly as are psychiatry and neurology, it is obviously impossible to abstract *all* the articles published—nor would that be desirable, since some of them are of very limited interest or ephemeral in character. The Editorial Board endeavors to select those which appear to make substantial contribution to psychiatric and neurologic knowledge and which promise to be of some general interest to the readers of the REVIEW. Some articles, highly specialized in character or concerning a subject already dealt with in an abstract, may be referred to by title only at the end of the respective sections.

A section entitled INTERNATIONAL RECORD OF PSYCHIATRY AND NEUROLOGY is to be included at the beginning of the journal. The Record Section will consist of advanced clinical and experimental reports.

The Editorial Board will at all times welcome the suggestions and criticisms of the readers of the REVIEW.

WINFRED OVERHOLSER, M.D.
Editor-in-Chief

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INTERNATIONAL RECORD OF MEDICINE

19½ EAST 62nd STREET, NEW YORK CITY

Quarterly Review of **PSYCHIATRY AND NEUROLOGY**

VOLUME 6 NO. 3 **JULY 1951**

Incorporating the International Record of Psychiatry and Neurology

The Advantages and Disadvantages of Electroshock Therapy from the Standpoint of Psychodynamic Psychotherapy*

J. Lloyd Morrow, M.D., F.A.P.A.

PASSAIC, NEW JERSEY

An investigation of the advantages and disadvantages of electroshock therapy (EST) from the standpoint of psychodynamic psychotherapy appears to be warranted more by the promiscuous use of EST than by actual experiential results with this method of treatment. It is now established that certain conditions, notably the involutional melancholias and affective states, respond very well to this method of treatment whereas other conditions, particularly the neuroses, do not; hence in the use of EST there is a certain measure of predictability that is not always present in other areas of psychiatry. The comparative brevity of this treatment is of benefit both to the patient and to the therapist. The doctor is welcomed warmly into the ranks of the rest of the medical profession as an individual, who, by manipulation of a machine, produces a cure, and the public lauds this new achievement.

Into the group of the successful "psychotherapists" has moved a large number of individuals who no longer feel the need for the training necessarily prescribed for psychodynamic therapy. Soon failure with EST becomes attributed to technic[1] rather than to procedure, and new machines and technics are accordingly devised. However, in spite of this rather depressing new orientation to therapy, some good emerges. Thus individuals inaccessible to ordinary measures of psychotherapy may be rendered accessible

*Presented at the Annual Meeting of the Medical Society of St. Elizabeth's Hospital, April 6, 1951, Washington, D. C.

by EST; certain individuals who are predictably harmful to themselves or others may be dramatically changed in outlook; and many conditions where patients refuse to give up their narcissistic feeling of omnipotence may be helped to lose their symptoms without giving up this feeling.

Evaluation of the benefits of EST demonstrates that, except for its very specifically indicated usage, these results may be obtained by other methods. Probably the most difficult of all problems to evaluate in connection with the use of EST is the concept of the approach to the inaccessible patient which is now attributed par excellence to EST. A growing body of knowledge, including the contributions of Federn[2] and Fromm-Reichmann,[3] indicates an approach to the psychotic based on flexible transference attitudes which may lead to ultimate and substantial character change. However, this procedure is extremely long and often exacts a toll of the tolerance and patience of the relatives, which results in their demanding EST for their own benefit. Needless to say, the number of individuals with training in the psychoanalytic therapy of psychoses is limited. It would appear then that EST is a method of expediency, and since it is in use examination into some of its more specific effects is required.

The most specific and constant effect of EST is fear. Patients undoubtedly experience this. They regard EST as a threat of annihilation, and, no matter with what bravado they profess otherwise, feel the same sense of helplessness as the child at the hand of the unpredictable but omnipotent parent. Before treatment, the patient pleads for help, and after the treatment he expresses relief that he was not destroyed. The attitude toward the EST treatment may be likened to a seduction. The therapist seduces the patient into submitting "for the sake of health." The common practice of mitigating fear by injection of barbiturates has been of help in effecting treatment without opposition. However, there is no evidence that this fear is ever entirely absent from the first to the last treatment or thereafter. The concept of the doctor as the agent who kills and brings back to life must always remain an integral part of EST. There is a certain similarity in the reaction of the patient to EST to the reaction of the patient with emotional illness, who incidentally undergoes a surgical procedure. Expiation or atonement for sin, through the medium of punishment, is a consistent feature noted. Thus, a 53 year old woman who developed a severe cancer phobia and agitated depression when informed that her bowel x-ray looked suspicious, received one electrostimulation treatment with an almost complete remission of her entire symptomatology.

Patients undergoing psychotherapy after having received shock treatment frequently demonstrate an irrational fear of the therapist, which is related to the previous fear in shock therapy both in conscious association and in dreams. A 26 year old male who underwent an acute depersonalization with regression and withdrawal was treated emergently with EST. In psychotherapy two years later, he mentions his fear of EST in connection with fear of castration on emergence of activities with girls. A 39 year old female who underwent a profound depression after failure of three years' temporary relief with alcohol received EST in 1948. Two years later her involvement with the therapist is equated in a dream with a brutal seduction on a hospital bed, in which the electrode and penis as means of oral gratification are indistinguishable.

Perhaps the largest group of patients with disorders that are treated with EST are those who have returned to their previous level of adjustment after the therapy, then may have had one or several psychotherapeutic interviews and terminated their relationship with the therapist. Strangely they refer many cases to him and are vociferous about the benefits they obtained. A survey of these various attitudes forces the conclusion that they are in some way like the penitentiary inmate who says, "I made my break with reality; it wasn't tolerated; I was punished; let me do my time in my own way." They simply say they got their shock, and they are not interested in giving any more. They have no desire for insight. They want only to maintain their own narcissistic concept of omnipotence. This is well displayed by a rather parasitic-like arrangement which ensued in a 28 year old female who suffered a schizophrenic-affective disorder in 1946 following a frustrated love affair. During her treatment she manifested a regression, with fantasies of oral impregnation, which later receded after some 37 EST's. Thereafter, she returned infrequently, refused any offers for help through understanding, and has since come to the office whenever she had oral tension for an injection of vitamin B. Her family states that she once almost developed a psychotic episode when she could not get an injection at the doctor's office during one of his vacations. Apart from these parasitic-like attitudes where treatment becomes merely a ritual, it thus seems that many patients are lost that might have benefited from psychotherapy. On the other hand, one might say that more were helped, if only partially, for this very reason.

Regression as a consequence of EST is undeniable. Ferenezi and Hollos[4] and, more recently, Frosch and Impastato[5] have described well the resulting dissolution of the ego with the appearance of infantile sexual and aggressive strivings and secondary symptom formation in the post-treatment period. Although the statement is made that restitution from disintegration may be complete or incomplete, actually little is understood of this phenomenon.

It might be reasonable to suppose that the capacity for restitution after EST depends on what the patient has to restitute to. Experientially, one witnesses many apparent contradictions. A 57 year old obsessional male who had lived a rigid, stereotyped existence in conformity with the demands of a severe, oppressive super-ego developed an acute, fulminating, agitated depression, with paranoid mechanisms, as a result of his only son's marrying a woman of another religion. He received 12 EST's during which he regressed to the level of a biting, spitting, kicking profane animal; he then restituted with a feeling of tolerance toward the son and has remained well for five years. A 49 year old, passive, feminine male with a hysteroid life adjustment developed tension and hypochondriasis as the result of a minor injury at work and reacted to the playful kidding of a male co-worker with a severe, agitated depression and anorexia. He received eight EST's with loss of depression and agitation, curiously showing little or no regression throughout the treatment, but he returned to his original hypochrondriasis. Here may be seen restitution after complete regression and only partial restitution in the absence of regression. Other cases have shown no restitution after complete regression and complete restitution without regression. The evidence appears to favor the concept that restitution depends upon the previous relative

strength of the ego boundaries as well as the previous capacity of the ego in integrating external and unconscious impulses in conformity with the tasks of reality. Regression would appear to depend upon the strength of previous fixation points. It may also perhaps be true that we are dealing with specific qualities of the narcissistic barrier.

Masochism[6] as an entity resulting from EST need not necessarily be any more striking than that resulting from any procedure in which an individual receives gratification at the expense of pain. Masochistic human beings often remind one of the attitude of the dog, which has become proverbial, just as the child who is punished by spanking becomes all the more affectionate and devoted. Thus a 38 year old female who developed a reactive depression to insufficient love and gratification on a masochistic level from an oral aggressive husband received 12 EST's with marked relief, later going on to a life of consistent sacrifice and denial of gratification. During psychotherapy she developed an intractable erotic transference with demands for punishment and desire to punish. She continues to display the basic, unconscious idea of "what has been done to me" and to present an old, unpaid bill for affection. Review of such cases indicate that where a capacity for masochism exists, it may be brought out visibly by the punitive aspects of the treatment. In the compulsive neurotic who has a strong ego supported by anal aggressiveness and who is stubborn, negativistic, with little need for love, the masochistic need may be walled off by isolation and hence appears only in an unguarded aggressive moment. This is well seen in a 29 year old female with strong dependency and hostility to a narcissistic, ambivalent mother. She developed a hypomanic state, with fear of killing her husband, later expressed as doubt of whether she had not killed her mother. She was given EST with only temporary remission, later relapsed, was hospitalized for several months, and has remained in psychotherapy for about one year. Despite growing insight, she has consistently exemplified the masochistic attitude of "what have I done."

Of the psychotic cases that have received EST and remain in psychotherapy a year or two, one gains the impression that at significant times they fear to express themselves openly. It is as though, if they expressed psychotic material, they might be "slapped down again." It becomes clear, as treatment progresses, that they look back on shock treatment as indicating insecurity and anxiety on the part of those who gave consent for, or administered, the treatment. On a deeper level there appears a weakening of the confidence in the physician who was not able to approach them and was frightened by their psychotic level. They interpret the doctor's psychology that, if he cannot seduce the patient back to reality on his level, he is intolerant of going to the patient on the psychotic level. Even when the patient feels sufficiently secure to express his resentment at being given shock treatment, he is magnanimous in saying, "All people are limited, even you, doctor—I can forgive you, but it is rough on me." To these individuals, life is easier, but nothing has been solved; things are artificial, and do not have the quality of tangibility. There is also a fear of impending disaster when things break down and they become second offenders; it is as though, to them, they have committed a crime at not being understood. Regarding the neurotic depressions and masochistic reactions, one notes a particular fixation at the positive transference level. These individuals remain strongly dependent and compliant, bring forth significant

material, very little of which appears to be truly assimilated. They appear to attach the therapist to their ego boundaries as a parasite; and though they may function satisfactorily, identify with the therapist, reason, and even give up symptoms for him, they are never truly in treatment and can easily leave him.

Of the group who finally get into analysis, it is observed that there is always an expression of a vacuum in the course of their lives, a feeling that something happened which they feel stopped and thwarted them. This is most noted in individuals who have undergone a two or three year withdrawal prior to treatment. With a monotonous regularity, they will return to their prepsychotic period, asking what had happened or whether they had any brain damage. This picture is not unlike that of a deteriorative phenomenon seen with old head injuries and, like these conditions, illustrates also a loss of cohesiveness in integrating neurotic experiences. At times one is confronted with paranoid outbursts and accusations that reality is never the same and seems to have acquired less solidity. It is as though they exemplify the attitude that shock treatment is the key to reality, so, "what's the use."

A word may be said regarding the attitude of other patients who come to an office where EST is administered. Here may be seen many of the fears of patients which are unnecessarily provoked by the imminence of such a procedure, as likewise may be noted the demands of many masochistic individuals seeking magical punishment which will relieve them of their symptoms. Many of these attitudes may be dealt with by usual methods of handling resistance, but it is undeniable that they furnish an unnecessary source of hindrance to the conduct of psychotherapy.

In conclusion, it is emphasized that EST is a measure of expediency which has only a limited place in therapy. Even in cases where it is properly indicated and under the very best of circumstances, it is no substitute for good psychotherapy. Restitution resulting from EST can never achieve more than the previous homeostatic balance of the individual. Effects of its usage, resulting in certain attitudinal responses on the part of individuals, clearly indicate that EST should be used with caution. In psychotics the end results are not unlike the description made by H. S. Sullivan when he stated, "the philosophy of the shock therapy is something to the effect that, it is better to be a contented imbecile, than a schizophrenic."

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Analysis Through Dream Analysis*

Sarah Shtoffer, M.D.

ST. ELIZABETHS HOSPITAL, WASHINGTON, D. C.

INTRODUCTION

When Freud[1] published his *Interpretation of Dreams* in 1900 he surprised the world by demonstrating that there was a scientific psychologic technic that made it possible to interpret dreams. His successors in the field have claimed that he overestimated the importance of the associations, and some have even objected to his methodical interpretation of every word in the dream. Stekel,[12] on the other hand, emphasized the importance of interpreting the dream as a whole. He disagreed with the theory of the universal symbol, claiming that "no symbol has a universally valid meaning." Of course, he was gifted with a certain intuitiveness that permitted him to interpret dreams even without the aid of associations. He amplified Freud's view that "a dream is a wish-fulfillment" by his discovery of the "key dream," which in so many of his cases unlocked the secret chamber of the patient's neurosis. Sharpe,[3] in her book on *Dream Analysis*, illustrates the theory of dream psychology and points out how an insignificant detail in the manifest content of the dream may lead to the most important latent thoughts.

Gutheil[4,5] feels that "active analytical dream interpretation" is indispensable in the future of psychotherapy. Karpman has attempted to interpret the dream using the total anamnestic material supplied by the patient as associations. He calls it objective or interpolative dream interpretation. He feels that, as one dream interprets another, many dreams can interpret the entire neurosis. He particularly emphasizes the differential character of dreams, pointing out that different diagnostic categories have different types of dreams, so that a study of the dreams of the individual can be differentially diagnostic. Thus, he shows[6] that the dream life of a constitutional psychopath differs characteristically from that of the normal, the neurotic, and the psychotic. Likewise, the dream life of a transvestite[7] differs strikingly from that found in other types of neuroses. Exhibitionists[8] have dreams which are characteristic of their psychopathology. In general, paraphiliac neuroses have dreams differing markedly from those of other neuroses, especially in the fact that the particular paraphilia is represented more frequently and with greater accentuation than in other neuroses. In the dream analysis of alcoholics[9,10] Karpman was able to demonstrate the essentially neurotic character of the reaction, alcoholism being merely a surface manifestation. He finds that the cumulative information obtained from dreams is more useful diagnostically than individual analysis of dreams.[11]

The present study is oriented in the focus of Karpman's contributions to dream analysis. It is, in a sense, an experimental, clinical attempt to learn the value of studying dreams for the general purpose of psychoanalytic therapy. The dreams

*Presented at the Annual Meeting of the Medical Society of St. Elizabeths Hospital, Washington, D. C., April 6, 1951.

presently studied are those of one of Dr. Karpman's patients. This patient is wholly unknown to the author, and no anamnestic material whatever was available to her in this case; she was given 1,100 dreams recorded by the patient, with his brief comments accompanying some of the dreams. Dr. Karpman suggested that these be analyzed, and that whatever information and significance they might have be extracted. Out of this, the following case history and dream interpretation was reconstructed.

CASE HISTORY

Preliminary Statement.—The patient is a 35 year old, single, white man, a devout Catholic, who had two "nervous breakdowns." The first was in 1938, when he was hospitalized in New York, and the second one occurred in 1946, resulting in his hospitalization at St. Elizabeths Hospital.

Family History.—His mother died while he was still an infant, and his father was an alcoholic who shirked all responsibility toward his children; he died in 1946. The boy was brought up by his aunt and uncle (Molly and Phil Jones), who must be considered as the mother and father. Aunt Molly died in 1946. A brother and sister died of tuberculosis in 1946, the latter apparently being somewhat mentally unbalanced during her lifetime. Cousin Bea is said to have been emotionally unstable, became an alcoholic, and either committed suicide or drank herself to death. The patient had more affection for Aunt Molly and Cousin Bea than for the male members of the Jones family, Uncle Phil and Cousin Charlie.

Personal History.—The patient was born in New York City, the youngest of four siblings, only one of whom is still living (brother Edward). He was brought up by the Jones family after his mother's death and later lived with his sister Mary and his cousin Bea. He left school in the eighth grade, worked for a while on the New York Stock Exchange, then left home to go to Peoria, Illinois, where he worked for a manufacturing concern. He came to Washington to work for the Government shortly before the second World War, and except for the two years he was hospitalized at St. Elizabeths, he has been a civil service employee. He made one attempt to go into business for himself, but this failed and he is now employed.

There is no history of severe illness, only tonsilitis in childhood and a foot injury in 1938, which required a cast and caused a temporary depression. There is a history of hay fever, relieved by benadryl, and a hemorrhoidectomy performed in June, 1949.

Sex Life.—He admits masturbating at an early age by sitting on the toilet and pressing against the washbowl. Every act of "self-abuse" was accompanied by guilt feelings, and the patient often resorted to prayers to free himself of the "noxious habit." As a child he saw both his sister and his cousin expose their bodies, but we do not have any positive information as to sex play with either girl. The patient states that he has never had heterosexual intercourse, except for one abortive attempt with a girl named "Lois," which he describes as follows: "I had been necking with her and got a little hard trouble, and she in turn even took hold of my penis and put it in her vagina and it was very tight. I recall I held her in my arms but got scared and told her so. I recall the tip of my penis hurt a bit because her vagina was very tight, and as a result

of being scared and using no rubber, I stopped doing it and felt it wouldn't be right and left her and went home. That was my only and last experience I ever had as far as having relations go."

He denies homosexual experiences and vehemently denounces premarital relations. He has a great fear of venereal disease and always carefully spreads toilet tissue on public toilets before using them.

Marriage.—He became engaged to a girl named Margaret, but for no apparent reason she broke their engagement, and that precipitated the illness which resulted in his hospitalization. At the present time he is going with an older woman named Miss A., who is openly trying to snare him into marrying her, but he manages to elude her on the pretext that he does not love her and wants to remain friends.

Habits.—The patient was a total abstainer until recently. Now he indulges in an occasional glass of wine or a cocktail in order to "arouse his passions." He is a devout Catholic and has many conscious religious conflicts regarding his masturbation, sexual desires, and even his analysis. He is very fond of music and has a good voice, but recently he has refused to sing in public.

Personality Make-up.—He states that he has always suffered from an inferiority complex, yet points with pride to the fact that he has accomplished a great deal in spite of his family's interference and lack of cooperation. With only an eighth grade education he was able to get a good position in the Government. He is very conscientious in his work but is afraid of responsibility and hence has not advanced as far as he should have done. He is most considerate of others and has an overly active conscience which prevents him from even minor sinning. He is apparently well liked by his many friends and quite popular with girls in spite of his small stature. He shows a normal amount of narcissism when he resents being likened to a fellow-worker who is "not as good-looking." He displays a considerable amount of depression which is the prime cause of his hospitalization. He also admits being envious of his cousins, who were obviously favored by Aunt Molly and Uncle Phil whereas he was usually rejected by them. His intelligence appears to be above average, and he tries to convey the impression that he is exceedingly broad-minded, especially with regard to racial prejudice. This is somewhat contradicted by his dream content.

DREAM LIFE

From March 4, 1948, to September 11, 1949, the patient contributed a total of 1,100 dreams; these have been divided into 19 different categories on the basis of a predominance of certain superficial themes which appear in the dreams and some of which are so designated by the patient himself. There are 95 anxiety dreams; 4 depression dreams: 34 guilt dreams; 102 heterosexual dreams; 111 homosexual dreams (most of these contain elements suggestive of homosexual implication rather than overt homosexuality); 53 emission dreams (most of which occur either in connection with homosexual dreams or after dreams which cannot be recalled except for a feeling of anxiety); 155 resistance-transference dreams (some of which merely indicate the progress of his analysis); 30 rejection dreams; 140 car dreams (these involve a car, truck, or bus); 34 child dreams

(these involve small children and babies); 41 hospital dreams (which include dreams of patients and hospital personnel); 9 coprophilic dreams (which involve the presence of fecal material); 39 reminiscence dreams (involving people and places he knew in the past); 8 female authority dreams (usually include his boss); 43 insecurity dreams (some of these are truly security rather than insecurity dreams); 25 racial dreams (mostly about Negroes, although once or twice Chinese are mentioned; some of these dreams had a marked homosexual component); 12 so-called sadistic dreams (perhaps better called dreams of violence); 27 Miss A. dreams (in which Miss A. plays the main role); and 70 relatives dreams (which can further be broken down to 17 Cousin Bea dreams, 23 Cousin Charlie dreams, 8 Aunt Molly dreams, 5 Sister Mary dreams, 21 Uncle Phil dreams, 3 Brother Edward dreams, 2 Cousin Chester dreams, and 1 father dream). Frustration appears in many of the dreams but is not as clear-cut as the above tendencies. In addition there are 107 dreams which do not fit exactly into any of the above 19 categories but have a mixture of emotions not clearly manifested.

Anxiety Dreams.—Most of the early anxiety dreams deal with funerals and dead people. In these the patient is always afraid to look for fear he might recognize the corpse. Dream No. 28, March 15, 1948, depicts one of these scenes, and the patient states that he thinks the dead person is his aunt; however, he is afraid to look. He is also unable to recognize the undertaker. The later dreams involve his fear of dogs and almost without exception depict him as being attacked by dogs of various shapes and sizes.

Dream No. 506, Dec. 9, 1948, turns into a nightmare when he realizes that the wake is being held for him. He appeals to Cousin Bea's husband and wakes up extremely frightened.

Dream No. 553, Dec. 28, 1948, is the first dream in which the anxiety is produced by pursuit. The patient is with a girl trying to escape from a pursuer who is a man.

Dream No. 691, Feb. 16, 1949, is the first dream in which an emission occurs "from being nervous and upset" because he is held captive by some "hard and mean guys." The fear of being killed is also present, and the presence of a dog is noted.

Dream No. 805, April 18, 1949, involves anxiety while riding on a bus because he was afraid he would be late for work.

Dream No. 1082, Sept. 2, 1949, is extremely important because it is again associated with an emission. It reads as follows:

"I was laying in bed with a woman and the woman looked like my Aunt Molly. I pressed up close to her but was afraid to press too close for fear of having a wet dream. She didn't do nothing, except was suspicious I guess. I even had the beginning of a wet dream but suppressed it." Here we have the anxiety produced by incestuous desires toward Aunt Molly, his mother surrogate, with an emission. Anxiety also accompanied the dream about Cousin Bea's husband, which might be interpreted to mean that he fears being punished by death because he has sinned against the husband, having coveted the wife. Other dreams, noted below, reveal incestuous desires toward Bea. The remaining anxiety dreams reveal his great fear of death or painful punishment and are frequently accompanied by sexual acts.

Depression Dreams.—It is surprising that only four dreams have a depressed con-

tent, since his chief complaint was depression. Time prevents these dreams from being quoted in full.

Dream No. 42, March 25, 1948, reads as follows: "I saw what looked like the same girl sitting on a bench of some kind with two people who looked like two women, and this girl was in the middle of them. But she wasn't happy and gay like the first time I saw her. Instead she looked very sad and depressed, and I sort of looked at the girl from afar, and somehow or other I knew how she felt 'cause I too had felt that way sometime or other, but I was very thankful I was all right and well again."

Dream No. 217, July 20, 1948, reads as follows: "Dreamt I was asking a friend of mine's sister how their mother was feeling as she had been ill for quite some time, and his sister said, 'She died last night,' and I said 'I'm sorry I didn't know.' I then asked John, her brother, if there was anything I could do to help. He said, 'Well, we could use some help around the house when the friends and relatives came to pay their respects.' I don't recall seeing Mrs. Harmon who was supposed to have died in the dream."

Dream No. 372, Oct. 3, 1948, reads as follows: "Dreamt I was in a room with some other people, and we were paying our respects to some man who died. I recall I looked at the coffin, and it looked like it was made of black steel or tin and it had some mohair fur or frese stuck to it, as though it was glued on. I recall I looked at the man who was dead in the coffin and he was about 80 years old and had gray hair, and then I recalled I had seen him before somewhere when somebody else had died and he attended the wake, and now he was dead, which only goes to prove one never knows."

Dream No. 387, Oct. 6, 1948, reads as follows: "Next I recall my leg being put in a plaster cast due to an old injury I received several years ago. It seems I had the doctor take the cast off a week ahead of time." This dream does not seem to be one of depression, but the patient comments that, at the time he had the cast on his leg, he was very depressed and asked for its removal.

It is noteworthy that after October 1948 there are no depression dreams. The four dreams quoted above really depict depression in others rather than in the patient, and two of them are concerned with the death of elderly pople.

Guilt Dreams.—The first guilt dream occurs early in the analysis (Dream No. 26, March 15, 1948) and appears innocuous enough, involving the drinking of a bottle of beer. Then come a series of three dreams (Nos. 196, 197, 198, June 30, 1948) which portray the patient as taking a girl away from another man, although she had promised him a date earlier, and then being denied the purchase of some little cakes or candies that looked like a cross. In addition, he found himself very uncomfortable while attending mass because, "it seems everything was being done that shouldn't be done at mass." Here we see that his guilt is so great that he cannot get absolution from the church. What is this guilt? The next guilt dreams (Nos. 246, 271) also concern themselves with the church, and again something interferes. Now we get a clue as to the reason for this guilt in Dream No. 362, Oct. 14, 1948, which reads as follows: "Dreamt I was walking along with two women and one of them was wearing a blue outfit with a blue cape, and I noticed the woman who was wearing the blue cape. The cape was very dirty and it needed a cleaning, and I wondered why she didn't have it cleaned.

I thought perhaps she was cutting down on expenses and that was one of them. I knew the woman with the blue cape. She worked in my office and due to a misunderstanding we don't speak to each other." In the comment he states that "her actions seems to remind me a little of Cousin Bea." Is it Cousin Bea whose cape is dirty? And is it the patient who made it dirty?

A further clue appears in Dream No. 637, Jan. 21, 1949, although the dream itself seems harmless enough. It concerns itself with the patient's inability to change a baby's diaper. However, the associations that followed the dream reveal in great detail the patient's severe conflict regarding masturbation and how he fights against it, only to succumb to pictures of seductive girls. If he were married, he feels, he would not have to masturbate.

Dream No. 901, May 31, 1949, is very short but informative: "Next I recall ho!ding someone close and about to make love to her, but I don't recall who it was; anyhow I stopped." Do we again have here guilt over incestuous desires? A later dream (No. 911, June 2, 1949) results in great guilt feelings over the use of contraceptives in the dreams. The rest of the guilt dreams carry through the same theme, so that we can postulate that the guilt is tied up with incest, masturbation, and a religious conflict, as far as can be determined from 1,100 dreams.

Heterosexual Dreams.—The patient has numerous heterosexual dreams, but none of them end in a satisfactory sexual relationship. Usually something or someone interferes before ejaculation occurs, or the patient has an emission before penetration is effected. In several instances he has an emission merely by pressing against the "rear end" of the woman, and he never has one when he actually performs the natural sexual congress. It is impossible to mention each dream in detail, but it is interesting to note that, in several, intercourse is about to take place when the patient realizes suddenly that his partner is either his sister, cousin, or aunt. These dreams will be discussed with the relatives dreams. In one dream he mentions his girl friend Margaret, saying that she did not appear as desirable as he had originally thought. Although he has frequent dreams of Miss A., he never has intercourse with her in a dream.

Homosexual Dreams.—These are more frequent than the heterosexual dreams, although there are few openly homosexual ones. The first one is Dream No. 14, March 9, 1948, which starts as a heterosexual dream, but the woman leaves before intercourse is attempted and the dream suddenly changes with the patient being chased by some man with whom he eventually joins forces. The next dream repeats this theme, only this time he hands a man a piece of strawberry shortcake which he originally intended to give to a woman (Dream No. 36, March 20, 1948).

Eventually the dreams become frankly homosexual in character. Dream No. 45, March 25, 1948, bears closer scrutiny. In this dream the patient has his "passions aroused while laying on my stomach on a small hill in the presence of this other fellow." Is it Mother Earth that arouses his passions, so he flees towards homosexuality, i.e., to the presence of the other fellow?

In most of the other dreams he is constantly being shot at by various and sundry men, or else they point guns and rifles at him. Is this not to be inferred as fear of homosexuality?

Dream No. 410, Oct. 26, 1948, again reveals this great fear of homosexuality when he is being held as hostage by two men "who were more or less on the Lesbian side of life, or fairies so to speak." It is Miss A. who notifies the police, who come and take these men away. Is she his salvation from his homosexual tendencies? If so, why does he run away from her?

In the next two dreams the patient reveals, for the first time, the unconscious desire to be a woman (or is it a fear that he is one?). Dream No. 737, March 18, 1949, reads as follows: "Next I recall watching someone, and this person combed their hair and then looked into a mirror, and it seems they looked like a girl with their hair combed that way, and I discovered it was myself I was looking at, and I looked again, much closer, into the mirror and noticed I or this other person had pretty blue eyes, and I admired those blue eyes." Dream No. 738 reads: "Next I saw the person I thought was a girl being greeted by a young fellow, and she kissed him, and I thought they would make a fine couple."

Dream No. 1002, July 25, 1949, finds the patient married to a man and hoping that he did not have relations with him. He felt disappointed but does not state why.

In Dream No. 1020, Aug. 3, 1949, he is followed into the men's room by another man and "takes a leak" in his presence; then becomes "a little worried" about going to work instead of going on a bus ride. Here we have our first evidence of guilt associated with a homosexual act. It is also interesting to note that the earlier dreams were free of anxiety, but the later ones with frankly homosexual content are accompanied by anxiety and guilt as well.

Emission Dreams.—These have been considered separately from the homosexual and heterosexual dreams because so many of them are neither but more or less anxiety dreams. The first one occurred exactly one month after the start of the analysis and is typical of the majority of his emission dreams. It is Dream No. 52, April 4, 1948, and reads: "I had a wet dream but can't recall what I dreamt about." In the next two dreams (Nos. 75, 105) he has emissions by pressing against a girl's back, and in Dream No. 140, June 6, 1948, he "started to have intercourse with her, but she didn't object. Only I sort of hesitated a little, as though I was expecting another woman along, but continued and had a wet dream." Who was this other woman?

He now has his first emission in the absence of a female partner, in Dream No. 160, June 10, 1948, where he presses against a blanket in the presence of his friend John Harmon and has an emission. In Dream No. 191, June 26, 1948, he has an emission by pressing against a wash bowl. The next dream is very important for here he runs up against the "barrier" that prevents him from having intercourse with women. In Dream No. 227, July 26, 1948, he describes trying to have relations with "some woman" and was about to have an emission "but she still wouldn't let me touch her so I forced myself over what seemed to be a barrier and had a wet dream all over her vagina, or so it seemed in the dream, and yet the act was not a complete act of intercourse." Who is the woman in the dream? If it is Aunt Molly or Cousin Bea, then the barrier might be explained as the "incest barrier." Dream No. 260, Aug. 10, 1948, mentions Cousin Bea for the first time in connection with an emission dream. It is also significant that in the dream

he "seemed to cling to her like a child would its mother." This theme is again repeated in Dream No. 292, Sept. 2, 1948, where Bea is his sexual partner in the presence of some people. In Dream No. 695, March 2, 1949, his partner is Miss A., but the ejaculation occurs by pressing himself against her back.

As with the homosexual dreams, the emission dreams in the beginning were free of guilt but later became heavily laden. The frankly homosexual content becomes manifest in Dream No. 968, July 9, 1949, in which the patient is wearing a female gown and started to dance with a tall man. "He held me close and my body pressed against his and the next thing I knew I was having a wet dream, but I suppressed the wet dream, at least most of it, and pulled away from the guy or man. I guess he was a little surprised, but I wouldn't dance with him anymore for fear of having a wet dream."

Dream No. 1062, Aug. 24, 1949, gives us an inkling of the psychodynamics involved in this case. He dreams of having sexual intercourse with a woman who has six children and who tells him that he is "pretty good for a man 86 years old." He has an emission, although he is disappointed that her vagina is so large. Is he here identifying himself with Uncle Phil, having intercourse with Aunt Molly? The very next emission dream (No. 1082, Sept. 2, 1949) finds him having intercourse with Aunt Molly. Although he never consummates the act, merely presses against her, he still achieves an emission.

Resistance-Transference Dreams.—This is by far the largest group of dreams and reflects the progress of the patient's analysis. The first dream (No. 3, March 4, 1948) finds the patient lost on a strange avenue, while a cop chastises a boy who has violated some law; later the patient finds his way again. Other dreams symbolize the digging up of subconscious material so essential for a successful analysis. An interesting dream is No. 18, March 12, 1948, in which the patient finds himself in the basement of a house in which there was much water and muck. As he started walking through this muck, he was warned about the water but replied that it was all right since he had black rubbers on.

The next few dreams show him trying to find the right pew or the right road. Then he has a dream about Dr. Karpman in which he is afraid of being transferred to another service (Dream No. 103, May 18, 1948). From then on his dreams show a definite desire for help from Dr. Karpman, and there are frequent instances of rejection on the part of the analyst.

The progress of his analysis is well illustrated in Dream No. 547, Dec. 26, 1948, in which he sees the bridge joining both shores, and only through the great improvement in health is participation in the great pageant possible. In Dream No. 809, April 20, 1949, he sees Dr. Karpman guarding his welfare.

Dream No. 902, June 1, 1949, shows for the first time the patient's desire for independence. He is able to fly the plane alone without help. Although at first the resistance was more evident in the dreams, the transference becomes apparent in the later dreams, and the patient gradually begins to dream of emancipation.

Rejection Dreams.—These are comparatively few in number and relatively easy to recognize. They are usually concerned with the feeling of rejection produced by either a member of the family, a friend, or Dr. Karpman. One dream illustrating his rejection

by the family is Dream No. 593, Jan. 10, 1949, which reads as follows: "Next I recall being somewhere in someone's home, and this party was at the frigidaire, pouring himself a cup of milk and using a glass cup, and poured himself some milk and drank it and then poured himself another cup full, and I thought he had quite a bit of nerve to do that and wouldn't think of doing it myself, but he didn't seem to mind."

Dream No. 616, Jan. 17, 1949, shows him being rejected by a woman with whom he desires sexual intercourse. However, on the whole, it is rather surprising that with a history of rejection practically from birth, there are so few rejection dreams.

Car Dreams.—A very interesting and important group of dreams involves an automobile, truck, or bus. This vehicle appears to be the central figure in the dream. It appears in the heterosexual, homosexual, anxiety, guilt, and even the emission dreams. In Dream No. 376, Oct. 4, 1948, the mystery of the car dream becomes clearer. In this dream the patient is taking Dr. Karpman for a ride and wants to impress him with the way he can handle the car. Could the car be a symbol of his neurosis or the progress of his analysis? In Dream No. 550, Dec. 27, 1948, he attempts to hide the car from the gaze of his girl friend because it isn't clean but dirty grey in color. In Dream No. 1083, Sept. 2, 1949, he recalls "being in a car and in a ditch and had to be cautious to get out. Woman was driving car and I guided her out. I also was in same car. The woman looked like Aunt Molly. Another car or two got stuck in similar hole or ditch. Helped them to get out. Foundation around the ditch was weak." Thus the car is intimately involved with the patient in his relations with the important people in his life.

Relatives Dreams.—This is by far the most significant group of dreams. Judging by the frequency of their appearance, one would think that Uncle Phil and Cousin Charlie play the most important role in the patient's life. It is evident from his dreams that he has little love for Uncle Phil, who openly preferred his son Charlie to the patient. In Dream No. 989, July 18, 1949, the patient expresses death wishes against Uncle Phil. In Dream No. 770, April 4, 1949, there is a suggestion of homosexual fixation on Uncle Phil. In Dream No. 652, Jan. 29, 1949, Uncle Phil takes a young girl away from the patient for himself, and the patient has to satisfy himself with Cousin Charlie. There is further suggestion of homosexual leanings towards Cousin Charlie in Dream No. 758, March 30, 1949. Nevertheless, in all these dreams there is open hostility towards both Uncle Phil and Cousin Charlie.

The dreams about Cousin Bea are mostly sexual. As mentioned earlier, there is frank desire for intercourse and in several instances intercourse takes place with emission. On other occasions, Cousin Charlie interferes with the successful conclusion of the act. There is much affection evident in all the dreams about Bea.

The important dreams about Aunt Molly have already been discussed. The incest motif is quite evident, and again there is much more affection evident for Aunt Molly than for Uncle Phil.

Both Edward and Mary appear infrequently in the dreams, and when they do, their roles are minor. In Dream No. 686, Feb. 11, 1949, there is a suggestion of a death wish against Mary.

The comments that accompany the dreams tell of the patient's unhappy childhood and conscious resentment of his aunt, uncle, and cousins.

SUMMARY

We have here a young man who was deprived of his parents at a tender age. His early life is characterized by rejection and obvious partiality towards the other children in the family. The boy develops incestuous desires toward his Aunt Molly (his mother substitute), which result in marked hostility toward her husband (his Uncle Phil). In addition, the boy spends a major portion of his life with his Cousin Bea on whom he is emotionally fixated. Hatred towards Uncle Phil, with subsequent death wishes towards him, result in guilt feelings. The fixation on Aunt Molly and Cousin Bea results in a "barrier" (see Dream No. 227) which prevents him from having normal heterosexual relations. This, too, is accompanied by guilt. Furthermore, all masturbatory acts are performed with much guilt feelings.

Since the heterosexual route appeared closed to him, homosexuality seemed the only answer. However, this was repressed until analysis released his dreams. The fear of homosexuality was manifested in his anxiety dreams and in his desire for heterosexual intercourse with almost every female contact. But he could never perform the act itself because of the above mentioned "barrier." He then turned to religion, for behind the church he could find an excuse for abstaining from intercourse. But this same religion produced further guilt feelings in him, for it condemned not only promiscuity but also masturbation.

Thus is born in him a conflict. If he masturbates, he sins against the church; if he abstains, his homosexuality tries to break to the surface. This results in his anxiety—the fear of death as punishment for his homosexuality. His pollutions are merely the result of unconscious masturbation.

As a further defense against his incestuous desires, he can only have anal intercourse (even in his dreams). His present girl friend, Miss A., could save him from his homosexuality, but he has identified her with Cousin Bea and so flees from her sexual advances.

At the start of his analysis there was much resistance, but he is now gaining insight and his subconscious thoughts are gradually being released. His anxiety, though becoming more frequent in his dreams, can more easily be recognized and its causes eradicated.

The depression from which he suffers appears to be a result of his guilt which, in turn, resulted from his incestuous desires and his subsequent homosexual tendencies. The prognosis appears good since his insight is improving and there is an earnest desire for a successful analysis.

This concludes the preliminary report of the dreams of Bob Jones; a subsequent study will be made with the balance of the dreams available, which will be compared with the patient's associative material obtained otherwise.

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ABSTRACTS

psychiatry

ADMINISTRATIVE PSYCHIATRY AND LEGAL ASPECTS OF PSYCHIATRY

The Problem of the Long-Hospitalized Patient. GROSVENOR B. PEARSON, Dixmont, Pa. Ment. Health Bull. *28*:3-6, Jan. 1951.

Twenty-six per cent of the 900 patients in the Dixmont State Hospital have been in residence 25 years or more. As compared with elderly patients admitted at an advanced age, representing a difficult problem in hospital management, this group of long residence presents an even more complicated problem: not necessarily elderly, frequently young and chronically disturbed, they are often unable to take part in hospital work and unlikely to recover. Prognosis and turnover are different. This group is predominantly schizophrenic. Economically and socially, the expense is great. Possibly the topic of hospitals for the chronically insane should be seriously considered. Research is suggested on the subject: is mental disease protective? do certain diseases raise a barrier to further disturbances in body economy? 1 reference. 2 tables.—*Author's abstract.*

Tuberculosis in Mental Hospitals. J. D. WASSERSUG, AND W. F. MCLAUGHLIN, Boston, Mass. J. Nerv. & Ment. Dis. *113*:115-26, Feb. 1951.

Tuberculosis is still prevalent in epidemic proportions in mental institutions, and its control rests on planned and orderly case-finding methods, repeated year after year. All suspicious pulmonary lesions must be studied clinically and bacteriologically before a definitive diagnosis is made. Many other adjuncts to diagnosis may be necessary in order to reach an accurate diagnosis. Patients with proved active disease and those in whom activity is suspected should be segregated in special wards or buildings, and their care should be under the direction of someone experienced in the management of tuberculosis. Collapse measures are of as much value in mentally deranged patients as they are in sane tuberculous individuals. Collapse treatments should be used more widely than they have in the past. In a few cases, restoration of mental health has been coincident with the institution of collapse treatment. To determine whether this is mere coincidence or causal in nature, the relationship between these two conditions should be further explored. Electric shock therapy has been given simultaneously with the induction of pneumothorax in one case with apparent benefit both to the mental and physical states of the patient. In several other cases the institution of collapse (pneumothorax) seemed to make electric shock un-

necessary. Streptomycin and BCG are of limited value in the control of tuberculosis in mental hospitals, but they should be administered where indicated. 24 references. —*Author's abstract.*

The Therapeutic Effect of Group Morale on a Psychiatric Hospital Ward. M. A. KLEMES, Topeka, Kan. Bull. Menninger Clin. *15*:58-63, March 1951.

A program of group activity, with all phases coordinated toward strengthening a group spirit among patients and personnel alike, was instituted on a ward containing mostly apathetic schizophrenic patients. The ward doctor spent as much time as possible on the ward each day participating with the patients in their various activities. Each day a corrective therapist led the patients in various game activities on the ward, and an occupational therapist assisted and encouraged the patients with their projects which were set up on or near their own beds. Aides and nurses were encouraged to assist in these activities—not only while the trained therapists were present but all during the day. Frequent parties were held on the ward. Whereas the patients spent most of the day on the ward, they left for various activities—always as a group.

All personnel participating in this program met regularly to discuss the progress of both patients and program. The ease of communication between all members of the therapeutic "team" was a distinct advantage. The patients, too, had regular meetings on a voluntary basis, and topics of discussion covered a wide range. The ward physician kept his active participation here to a minimum and allowed the patients to "take over" as much possible. Drama therapy was subsequently incorporated into the program.

The results of this program were found in the increased activity and participation of the patients, heightened morale among both patients and personnel, and a distinct change in the atmosphere of the ward from a dismal, depressing place to a cheerful, friendly one. A "ward spirit" became evident. Moreover, the ward physician felt able to help more patients than previously and was more secure in the knowledge that prescribed treatment aims and attitudes were being carried out. 9 references. —*Author's abstract.*

A Study of Neuropsychiatric Rejectees. JOHN R. EGAN, Old Saybrook, Conn., LIONEL JACKSON, Palo Alto, Calif., AND COLONEL RICHARD H. EANES, M. C., U. S. Army. J.A.M.A. *145*:466-69, Feb. 17, 1951.

Two thousand and fifty-four men originally rejected for neuropsychiatric reasons later served in the Army, with the result that 79.4 per cent, or 1,630 of the total, rendered satisfactory service. This would indicate that of the 1,992,950 men rejected because of "mental and educational deficiency" and "neuropsychiatric conditions," a large number could have served profitably in some capacity and would have been discharged honorably and without a neuropsychiatric disability.

For a future emergency mobilization, the methods of the past, wherein the examination of a prospective recruit resulted merely in a cataloging of physical attributes,

must be revised and some method devised whereby the examination may reflect the recruit's ability to serve. This may be accomplished, at least in part, by perfection of the profile system presently in use. However, no common criterion was found in the present study that could be used in the examination of men to identify in advance those unable to serve creditably.

Because of the lack of personnel and time, the neuropsychiatric examination, as it was carried out as a part of the process of examining men, was fair to neither the examiner nor the examinee. Some other method must be devised. A definite effort may be made by the Selective Service System to establish, at local board level, a registrant's successes and failures as he has reacted to civil life, and unless he is definitely psychotic or psychoneurotic to such an extent that he has not been able to adjust to civil life, he should be inducted. Within the armed forces a determination may be made, under observation, regarding his usefulness. If it is determined that he cannot be used profitably, he should be discharged with no obligation to the government because of so-called possible aggravation.

The Neuropsychiatric Implications of Illiteracy. W. A. HUNT, Evanston, Ill., AND C. L. WITTSON, Lincoln, Neb. U. S. Armed Forces M. J. *2*:365-69, March 1951.

An examination was made of the neuropsychiatric records of 1,413 illiterates who had previously received neuropsychiatric screening at a Naval training station before being sent for literacy training. During literacy training 11 per cent of these men, despite their previous screening, were discharged for neuropsychiatric reasons. During one year of service following the completion of literacy training, 3 per cent more were discharged for neuropsychiatric reasons. This is twice the over-all Navy rate for that year. The conclusion is drawn that illiterates are a poor psychiatric risk for military service. 2 references. 2 tables.—*Author's abstract.*

ALCOHOLISM AND DRUG ADDICTION

See Contents for Related Articles

BIOCHEMICAL, ENDOCRINOLOGIC, AND METABOLIC ASPECTS

A Central Homeostatic Mechanism in Schizophrenia. D. HILL, P. ST. J. LOE, J. THEOBALD, AND M. WADDELL, London, England. J. Ment. Sc. *97*:111-31, Jan. 1951.

A lack of normal reactivity to physiologic stresses in patients suffering from schizophrenia has been suggested by a number of workers, notably by Gellhorn. This defect in homeostasis is probably determined by faulty mechanisms in the central rather than the peripheral part of the nervous system.

To test the hypothesis, the responses of the cortex (measured by changes in the EEG) and of the autonomic nervous system (measured by changes in heart rate and palmar skin resistance), to insulin-induced hypoglycemia were examined in normals and schizophrenics. A special apparatus was designed to record second by second changes in all variables, and the changes in the EEG were further analyzed by the method of selectively tuned oscillators. The changes were followed over a

period of at least 30 minutes and were plotted against the changes in blood sugar level. Seventeen control subjects and 40 schizophrenics were examined, the latter sometimes on many occasions, providing 103 experiments on the patients.

In normal subjects the homeostatic defense mechanism to progressive hypoglycemia was witnessed as the following series of events: (1) slowing of the alpha frequency of the EEG by 1-1½ c./sec.; (2) the appearance in the EEG of a new rhythm at 5-6 c./sec. in the frontal or central regions or both, and followed by (3) the appearance within a quarter to three minutes of a sudden fall in the palmar skin resistance and rise in heart rate. This evidence of discharge of the sympathetic adrenalin system was followed by (4) a slight rise of the blood sugar level within a further variable time, the mean being four minutes. The whole series of events took usually from 25-30 minutes after an intravenous injection of insulin (a half unit per pound body weight).

Among schizophrenic subjects, the above order of events was not consistent. (1) The level of blood sugar at which the new rhythm at 5-6 c./sec. appeared in the EEG was significantly lower than among the controls. (2) The time at which this occurred after the insulin injection was significantly later among the schizophrenics. (3) The order of changing events in the EEG, sympathetic adrenalin discharge, and rise in blood sugar level is not consistent among the schizophrenics.

In 29 out of 79 experiments a rise in blood sugar level occurred before either of the other events, a phenomenon not encountered among normal persons. Variability of the phenomena was observed in schizophrenic patients from time to time, and there was evidence of a correlation with the clinical state of the patient. For example, in catatonic stupor, no homeostatic defense was observed and the blood sugar level in some cases fell very low, while no change occurred in the EEG or in the sympathetic adrenalin system. Normal responses reappeared after the patient had recovered. The findings are discussed in the light of Gellhorn's observations, suggesting that the hyporeactivity of the autonomic system lies in hypothalamic centers. The data presented indicate the part played by higher centers in the cortex which influence the excitability of hypothalamic mechanisms. 11 references. 12 figures.—*Author's abstract.*

CLINICAL PSYCHIATRY

Hospitalization in the Treatment of the Neuroses. HOWARD B. SMITH, AND LAUREN H. SMITH. Philadelphia, Pa. Am. Pract. 2:241-46, March 1951.

Prolonged hospitalization creates a new reality problem to which the patient reacts by unconsciously refusing to give up neurotic symptomatology because to do so would mean giving up a secure, need-satisfying protected environment. In this sense prolonged hospitalization duplicates the protective infantile mother-child relationship. As a result of our experience, we feel hospitalization should be limited to eight weeks, with an extension of four weeks if it is felt by the therapist that the patient is not bogging down into the rut of dependency, the satisfaction of which the hospital, in a sense, offers.

1. The hospital offers a change in environment. It offers to the patients a calm, less instinct-reinforcing atmosphere, a friendly, more accepting environment, an absence of threat, castigation, and punishment, and makes possible a more objective view of the traumatic situation from which the patient was removed. An opportunity is offered the patient to regroup his battered ego forces.

2. The observation of the patient and his reactions by trained personnel makes possible a better understanding of the patient in a shorter period of time.

3. Hospitalization makes possible the evaluation and treatment of the total health of the patient.

4. Hospitalization obviates resistances and reality factors in the form of inclement weather, distance, etc., which interfere with intensive and sustained psychotherapy.

5. For the patient with suicidal phobias or varying degrees of depression, hospitalization offers a more protective, reassuring situation. This applies equally to patients who are using sedatives. The responsibility for the possession and dispensing of sedatives is best not left in the hands of depressed or anxiety-ridden patients.

6. In the hospital setting, in association with patients with similar problems, certain group identifications occur which dilute, to some extent, the individual patient's anxieties and reduce the use of intellectualization as a resistance to psychotherapy.

7. The hospital serves as an excellent facility for re-educating the patient, for restimulating old interests and awakening new ones. The trained personnel, the materials and the time, are all available in one place to accomplish these purposes.

Finally, the chief physical and personnel factors which go to make this hospitalization program successful are: (1) a unit arrangement where patients with anxiety problems can be physically housed and separated from close contact with other types of patients, i.e., character disorders, alcohol problems, etc.; (2) comfortable, but not expensive private rooms, and community dining room and living room; (3) mature observant nursing personnel who are capable of gentle persuasion or "push" to aid the patient in entering the daily activities schedule and to aid the therapist in obtaining a better understanding of the patient; (4) an individual psychotherapist who has the time and interest necessary to spend in intensive psychotherapy as dictated by the needs of the patient; and (5) a "total push" program designed to stimulate the patient's interests, develop new interests, and constructively utilize the patient's time.

Although this study of patients was conducted in an open hospital, which is essentially psychiatric, it would be of interest to those who are planning programs or ward development for a modern general hospital. Most of the principles learned from this experience should be kept in mind and applied appropriately in a general hospital setting in cases of patients of this type, if they are to be provided for adequately.

The "Meaning" of Symptoms. A Case Report. M. J. HORNOWSKI, Topeka, Kan. Bull. Menninger Clin. *15*:64-69, March 1951.

In this article the author states that the physician who undertakes the treatment of psychosomatic patients often does so with two strikes against him. The more impor-

tant strike is the fact that the physician, and notably the psychiatrist, often does not understand the meaning of physical symptoms. The physician often views these symptoms as resistances to therapy, rather than sincere attempts on the part of the patient to describe a pathologic process. Further, and more important, a patient "somatizes" because this appears to him to be the only acceptable manner of communicating to us his particular dysequilibrium. If he had (for him) better methods of communication, he would have no need for somatization, and indeed it would not occur.

A case report has been cited of a 26 year old World War II veteran who entered the hospital with multiple somatic complaints. Early in his hospitalization he was seen by an internist, who correctly sensed the underlying psychic turmoil and referred the patient to a psychiatrist. What appeared to be acceptance of this referral on the part of the patient was later seen to be a marked hostile reaction to the internist which the patient handled by becoming quite passive. During the course of the psychiatric treatment it was noted that from 30 to 45 minutes of each therapeutic interview was spent in discussing the patient's physical complaints in great detail and from various aspects. Invariably, however, the remaining 15 to 30 minutes of each interview would be productive of the emotionally tinged material to which all of his physical complaints were secondary. When the psychotherapist attempted to point out the psychologic relationships at a later interview, the patient again became quite hostile and passive verbally. Thus it became apparent that as long as the psychotherapist related with this patient as an internist ordinarily would, psychotherapy progressed. However, when this procedure was reversed and an attempt was made by the therapist to indicate psychologic relationships, psychotherapy ceased. After 16 interviews of the type described above the patient was asymptomatic and was able to leave the hospital. A report some two and one-half months after his discharge indicated that he was still working and had not needed to seek medical care in the interim.

The following conclusions were drawn:

1. In the treatment of many psychosomatic and psychiatric patients, the physician often does not understand the meaning or the importance of symptoms.

2. According to the holistic theories, any communication is indicative or symbolic of the sum total of a patient's disturbed equilibrium.

3. In any psychiatric case, psychotherapy will progress better if the physician or therapist is responsive to the particular patient's communications regardless of their content.

4. In certain psychosomatic cases, the internist, with proper orientation, is better suited to do psychotherapy than is a psychiatrist.

Symptom Specificity and Bodily Reactions during Psychiatric Interview. R. B. MALMO, C. SHAGASS, AND F. H. DAVIS, Montreal, Canada. Psychosom. Med. *12*:362-76, Nov.-Dec. 1950.

Three individual case studies were undertaken in the interview situation in order to provide data supplementary to the data from group (cross-sectional) studies, bearing on the principle of symptom specificity.

Psychiatric interviews were conducted in the experimental room. The patient lay on a regular hospital bed in a comfortable position. A sound record of the interview was taken by means of a standard tape recorder. Electromyograms from a number of bodily areas were simultaneously recorded. The sound record was exactly synchronized with the EMG tracing.

Observations from present individual case studies are in line with predictions based on results from the group studies. "Subclinical" disturbances in critical symptom areas were noted in response to stress of interview and in response to discussions of life situations distressing to the patient. These disturbances appeared to be *specific* in the sense of reflecting lowered threshold for disturbance in bodily areas associated with the symptom in question. Continuous study, particularly of one case, afforded the kind of repeated day to day study which established the consistency of the phenomenon.

Such findings constitute evidence for specificity of association between symptoms and physiologic mechanisms, and thus support the principle of "symptom specificity" which states that the particular physiologic mechanism of a somatic complaint is specifically susceptible to activation by stressful experience.

Individual case study of the sort employed here appears to be a promising method for providing detailed accounts of symptom mechanisms. The present study has revealed striking differences in mechanism (particularly with regard to temporal features) in 2 cases where end results in the form of symptoms were quite similar. The study has indicated that, although 2 patients may both present a similar tensional symptom, the temporal aspects of the chain of physiologic events leading to elicitation and subsidence of the symptom may be quite different from case to case. This suggests that further detailed study of a larger number of cases may reveal hitherto unexpected differences in *symptom mechanisms* in cases with similar symptoms. 7 references. 8 figures. 3 tables.—*Author's abstract.*

Family Structure and Psychic Development. J. HENRY AND S. WARSON, St. Louis, Mo. Am. J. Orthopsychiat. *21*:59-73, Jan. 1951.

A household may be described and analyzed as a field of forces whose essential dynamic is derived from systems of interacting persons. These systems may be discovered and counted and their emotional qualities described. In each one of these systems each person in the household functions in a somewhat different way. The exact character of each system is eventually determined by the personality configurations of the individuals. Meanwhile, the systems they set up by virtue of their personality configurations react upon them to affect their behavior. The interactional systems operative in complex households are forces that ultimately have an important determining effect on the fate of any endopsychic process. Thus the oedipal conflict, narcissistic needs, or masturbatory fantasies will be worked through not only in terms of parent-child relations but also in terms of the total field of forces set in motion by the interactional systems that are generated. Hence it is not possible to understand the vicissitudes of child development in terms of simple parent-child or sibling

relationships. We must attempt to understand child development in terms of household—or even broader—configurations.

We feel it important to call attention to the relative rigor with which the interactional systems can be determined and counted. This provides a framework of unusual precision within a discipline such as ours, which is relatively imprecise in its determinations. It suggests the possibility of a somewhat more precise approach to the problems of research in psychodynamics. While we recognize the necessary and important role of intuition in interpreting human behavior, we feel at the same time that structural frameworks that give more exact reference fields for analysis can be exceedingly useful as heuristic devices. It is in this sense that we offer this contribution. 1 figure. 1 table.—*Author's abstract.*

The Influence of Unconscious Factors on Hypnotizability. A Case Report. G. A. EHRENREICH, Topeka, Kan. Bull Menninger Clin. *15*:45-57, March 1951.

This paper is a report of a series of hypnotic sessions with a subject who responded in an unusual fashion by exhibiting deep trance hypnotic phenomena of various kinds while failing to carry out a specific suggestion, usually considered to be a light trance phenomenon. Through the use of automatic writing, regression and other technics, it was possible to discover repressed childhood experiences which were related to the "inability" to carry out the one suggestion. As a result of the recovery of these memories in relation to the specific phenomenon being investigated, the subject suddenly responded positively to the suggestion and continued to do so from then on.

The material which was revealed during the sessions is discussed in an attempt to explain how unconscious psychodynamic factors determined the hypnotic response of the subject and how their discovery brought about a striking change in that response.

Reference is made to the implications of such a case for research in hypnotizability, particularly in terms of the difficulty of appraising unknown unconscious factors which may be operating to influence the subject's response.—*Author's abstract.*

Studies in Schizophrenia. F. N. BULLOCK, I. W. CLANCEY, AND H. H. FLEISCHACKER, Herts, England. J. Ment. Sc. *97*:197-208, Jan. 1951.

An attempt was made to define more clearly the basic clinical and clinical-pathologic signs of "idiopathic schizophrenia" (of not yet established etiology) and to eliminate "schizophrenic reaction syndromes" in disorders of known etiology. Seventy-six patients admitted to the hospital with the diagnosis or differential diagnosis of schizophrenia were examined by clinical and laboratory technics. The correlation of findings showed:

1. Patients displaying essentially the classic signs of "schizophrenia" (thought-disorder, inadequacy and inappropriateness of affect, hallucinations, and disturbance of empathy) show also a slight, nonspecific but characteristic disturbance in the cerebrospinal fluid. In the absence of a definitely known or traceable cause of the

disease, this syndrome is called "idiopathic schizophrenia." There were two main groups (altogether 49 patients):

Sub-Group I. This subgroup was characterized by a severe disturbance of conceptual thinking, shallow inappropriate affect, absence of empathy, and hallucinations that were difficult to elicit. The C.S.F. showed a relatively strong increase of globulins. Prognosis on the whole was bad.

Sub-Group II. These patients were more obviously hallucinated; their emotional response was usually inappropriate but had greater depth. Empathy was present, and, finally, the thought disorder was difficult to elicit. The C.S.F. showed, on the whole, that the increase in total protein was due to a greater increase in the albumin fraction than in the cases of subgroup I. Prognosis on the whole was good.

2. There were 21 patients who did not show clinically the classic features of schizophrenia. Their cerebrospinal fluids were either definitely pathologic or definitely normal. These patients, often with schizoid personalities, were found to suffer from "schizophrenic reaction syndromes" produced by, or superimposed on, toxic and infectious states, organic diseases of the brain, involutional melancholia, feeblemindedness.

3. Six patients out of the 76 could not be satisfactorily diagnosed by the above methods.

4. From a still small number of cholesterol estimations it appears as if the concentration of this substance in serum was abnormal only in cases with definite endocrine disturbances.

5. Among the patients examined were also 10 suffering from "puerperal schizophrenia." The potential significance of the findings in these cases is discussed. 11 references. 5 tables.—*Author's abstract.*

Influence of the Temperament and Environment on the Intellectual and Moral Development. (L'influence du Caractère et du Milieu sur le Développement Intellectuel et Moral). J. CATHALA, Paris, France. Presse Med. *59*:185-89, Feb. 14, 1951.

The author concludes his important work with these few words:

"Familial conflicts, school difficulties, clearly abnormal behavior, disorders of organic process—all these cause the physician to cope with problems he cannot solve unless he takes into account the permanent character elements, casual circumstances, conditions of the environment, affective hurting episodes. The physician, even if he does not present any claim to be a psychologist or a psychiatrist, cannot dispense with either the temperament symptomatology or the concepts elaborated in the modern schools of psychology."

Digitalis Delirium. J. T. KING, Baltimore, Md. Ann. Int. Med. *33*:1360-72, Dec. 1950.

For at least 75 years opinion has been divided on the question of digitalis delirium. Some observers have considered the delirium found occasionally in cardiac patients under treatment to be due to circulatory or toxic disturbances; others have attributed it to the direct effect of digitalis. The author has seen 6 cases in which delirium of

an agitated nature coincided with therapeutic doses of several digitalis preparations. The delirium ceased within one or two days after withdrawal of the drug. No relation to diuresis or other drugs could be demonstrated. There was some suggestion that organic disease of the aortic valve may predispose to this condition. It is concluded that occasional patients do suffer toxic delirium from the direct effect of digitalis therapy. Preparations concerned in these cases were lanatoside C, powdered leaf, and digitoxin. 16 references. 6 figures.—*Author's abstract.*

GERIATRICS See Contents for Related Articles

HEREDITY, EUGENICS, AND CONSTITUTION

See Contents for Related Articles

INDUSTRIAL PSYCHIATRY

See Contents for Related Articles

PSYCHIATRY OF CHILDHOOD

Glutamic Acid and the Intelligence Quotient (Acide glutamique et quotient intellectuel). JEAN DELAY AND P. PICHOT. Bull. de l'Acad. nat. de méd. *135*:112-17, Feb. 20, 1951.

A series of 20 cases of mental deficiency are reported. One-half were treated with glutamic acid in a dosage of 8 to 12 Gm. daily for three months; the other 10 were not given glutamic acid but were used as controls. The average increase in the intelligence quotient of the 10 patients treated with glutamic acid was 7.6 points in the three months' period as compared with 2.5 points in the controls in this same period. In some of the patients treated with glutamic acid, symptoms of depression were also improved. The effect of glutamic acid on the intelligence quotient as observed in these cases agrees with the results reported by others and also with results obtained by the authors in other cases. While it has been shown by others, and will probably be true in the cases reported, that the gain in the intelligence quotient is not fully maintained after treatment with glutamic acid, yet the patients show a mental improvement due to certain gains made during the period of improvement in the intelligence quotient. Because of the high cost of the product, glutamic acid should be used only in the most favorable cases, especially in those with relatively good emotional stability and not too great a degree of mental deficiency. Glutamic acid is only slightly toxic; it may cause vomiting and diarrhea in children. If the dosage producing these symptoms is less than the minimal therapeutic dose, interruption of treatment may be necessary. In adults in the older age groups, the blood urea may be increased and alkaline reserve diminished. In none of the authors' cases has it been necessary to discontinue treatment for this reason, but a definite and permanent increase in the blood urea would be an indication for discontinuing treatment.

PSYCHIATRY AND GENERAL MEDICINE

The Hypothalamus and Psychosomatic Medicine. HERBERT C. MODLIN, Topeka, Kan. Bull. Menninger Clin. *15*:16-20, Jan. 1951.

Recent studies related to frontal lobotomy have forged another link in the chain of evidence supporting the psychosomatic (holistic) view of disease. Attention has been focused on the relationship of the frontal lobes to the hypothalamus and autonomic nervous system and on the coordinating role of the hypothalamus in the functioning of the total human organism. Among many hypothesized functions of hypothalamic control, the following have been adequately established: temperature regulation, sleep and waking cycle, fluid balance, carbohydrate metabolism, fat metabolism, gastrointestinal mechanisms, and emotional balance.

The physiology of the hypothalamus is demonstration of the psychosomatic principle. Nowhere else in the body do the elements essential to the complete organism merge into so integrated a pattern as in the hypothalamus. Its afferent connections are with the cerebral cortex, thalamus, visual and acoustic nuclei, the basal ganglia, and medullary centers. Efferently, it influences the cortex, thalamus, midbrain, medulla, spinal cord, and pituitary gland. It effects most of the physiologic levels of the organism, and dysfunction of this area will necessarily alter the rhythm and pulse of the organism in a fundamental manner. 8 references.—*Author's abstract.*

Mood, Anger and Somatic Dysfunction. I. D. HARRIS, Chicago, Ill. J. Nerv. & Ment. Dis. *113*:152-58, Feb. 1951.

This report is concerned with the relationship of depressive tendencies and inadequate discharge of anger to somatic symptomatology. Major attention will be focused on one symptom, namely, the subjective feeling of poor health. The findings to be presented are based on single diagnostic interviews with 120 women.

The subjective feeling of ill health has not received much attention in the literature. Its importance should not be underestimated, inasmuch as it is this subjective feeling which usually determines whether a person visits and continues to visit a general practitioner or a medical clinic, or, finally, if physical findings have been minimal, a psychiatrist. To certain patients it matters little if the physician tells them there is nothing organically wrong. These patients, in distinction to others who are relieved by such reassurance, either persist in their symptoms or develop new ones; in brief, they continue to feel "not well." These persons form a certain percentage of the medical outpatient clinic population. Their continued visits to the outpatient clinic make necessary numerous and varied examinations and tests, until in desperation the understaffed psychiatric department of the hospital is called upon for help. Thus these patients are a problem to those practicing medicine and surgery. In some cases they are dangerous to themselves, as evidenced by the conviction of many suicides that they are hopelessly ill.

As regards the psychiatric diagnoses of the women, most of them could be classi-

fied as tension or anxiety states, either reactive to a life difficulty and/or based on some characterologic disturbance. Only a few were suffering from a classic psychoneurosis or a marked emotional disorder. Thus these women presented, for the most part, a mild or subclinical type of emotional disorder frequently found in women patients visiting a family physician or a medical clinic.

In the diagnostic interview with the women questions were asked about their personality adjustment. Six subgroups of the women to be considered are: (1) depressed: releases frequent anger (14 cases); (2) depressed: releases infrequent anger (11 cases); (3) depressed: holds in infrequent anger (20 cases); (4) cheerful: releases frequent anger (18 cases); (5) cheerful: releases infrequent anger (33 cases); (6) cheerful: holds in infrequent anger (24 cases).

Examination of these six subgroups of particular mood-anger combination was then made to ascertain the prevalence of the subjective feelings of "ill health." It was found that the subjective state of health could be best expressed by the ratio of those claiming poor health to those claiming good health.

The results suggested that a *feeling of good health is dependent both upon a gratification of basic needs and upon an ability to discharge anger externally and rather completely when the needs are not gratified.* When this optimium situation was present in the women examined (Group 5), the poor health ratio was the lowest (0.3). When *either* nongratification *or* inability to discharge anger was present (Groups 4, 6, 1, and 2), the ratio was higher (0.6 to 1.0). When nongratification *and* nonrelease of anger was present in combination, (Group 3) the ratio was highest (1.8).

The question may be asked: Of what practical use are these observations in the diagnosis and treatment of psychosomatic disease? This would seem to depend on whether it is the psychiatrist or the internist who is dealing with the patient. While psychiatrists usually have available more refined methods of diagnosis and treatment, the internist, for want of time and experience, may find it helpful to view his patients along the lines indicated in this report. 4 references. 1 table.—*Author's abstract.*

Emotional Aspects of Obesity. W. W. HAMBURGER, Rochester, N. Y. Med. Clin. North America 35:483-99, March 1951.

Review of the pertinent literature on obesity fails to reveal any intrinsic metabolic, endocrinologic or central nervous system abnormality as the cause of the usual case. The symptom of hyperphagia has been the only consistent finding in obese patients. Hereditary, constitutional, or hypothalamic factors may all play a part and need further elucidation, but without overeating, the predisposed individual will not develop obesity.

Hunger is the physiologic expression of the body's need for energy (food) which operates involuntarily in the healthy individual. Appetite on the other hand is a psychologic desire to eat and gives a distinct anticipatory pleasure. Normally, hunger produces appetite, but appetite can also be stimulated by other means such as the sight, smell, and memory of certain foods and individual experiences while eating.

The particular factor in appetite is the person's emotional state. Emotional tensions of many sorts are reflected in appetite either in the direction of increase or decrease. Normal examples given are love and grief. In morbid emotional states, particularly the depressions, eating disturbances are often cardinal symptoms. Studies by other authors have suggested the possibility that obese patients may be experiencing a similar reaction to emotional upset by overeating.

The author therefore determined to investigate the role of emotional factors in the hyperphagia of obese patients. Eighteen obese patients were selected simply on the basis that they had had adequate psychologic study to reveal some of their motivations for overeating. Each patient was studied by psychiatric interviewing from one to 398 hours, a total of approximately 900 diagnostic and therapeutic hours. Several of the author's colleagues contributed detailed data on several of their clinic cases.

Twelve of the 18 patients had been aware of marked changes in appetite accompanying transient nonspecific emotional upsets. Seven of the 18 patients reacted to frustrating life situations with chronic overeating. It was felt that this was a chronic response to a chronically disturbing situation analogous to the previous group of "acute overeating" in response to a transient emotional upset. Eight patients developed hyperphagia as only one of many symptoms of an underlying emotional illness. These included neurotic depressions, obsessive-compulsives, and hysterical neuroses. It is stressed that of the entire series of 18 patients, 12 exhibited depressive features in their histories, 3 of whom had made suicidal attempts. The patients with hysterical disorders underlying their hyperphagia were all women for whom overeating was associated with a sexual conflict, either phantasied or realistic. These were women with marked heterosexual difficulties who displaced their sexual impulses from genital gratification to overeating. To them eating had an unconscious (repressed) sexual significance. In several such patients, unconscious oral impregnation phantasies from childhood persisted. The prime motive for overeating in 8 patients seemed to be a compulsive craving for food, often starting in earliest childhood and apparently independent of external precipitating events. Such a craving is uncontrollable and has to be satisfied even if food or money to buy food has to be stolen. These patients crave food like an alcoholic addict craves drink. Such a case history is detailed, emphasizing that the possession and eating of food served as a substitute emotional satisfaction for the love and affection which that patient basically craved.

Although treatment was not the primary aim of this study, of those patients who were in psychotherapy, only 3 lost any weight while under observation. Some received diet and drugs in addition to psychotherapy; others did not. Because the overeating seemed to serve these patients' emotional needs, it is felt that difficulty or inability to decrease food intake and lose weight is not surprising. Furthermore, 6 patients in this series gave a history of emotional upsets when they had previously lost weight. Such a response to weight reduction might well be termed negative therapeutic reaction and is logical in terms of preceding formulations. The outlook for reducing the obese patient's hyperphagia should theoretically depend upon the underlying emotional conflicts of which the hyperphagia is thought to be a symptom.

Thus overeating as an addiction to food would be the least reversible for the underlying emotional needs are the most difficult to satisfy.

Psychoanalytic psychology provides a theoretical frame of concepts which make the preceding observations more meaningful. This relates specifically to the Freudian concept of "orality" within the libido theory. In simple terms, this concept stresses how important mouth activities are in the earliest part of human life. To the infant, being fed is associated with the warmth of mother's love. Certain children become fixated at the oral stage of emotional development due to a variety of disturbances in the mother-child relationship. Such children's craving for love and security, if not satisfied, may be translated into a craving for food because of the unconscious infantile association of being fed with being loved. This libido theory also states that for the young infant all mouth activities, including eating, have an erotic sexual component. As the normal child develops, the nutritional aspects of eating become separated from the erotic ones, and the erotic component gradually shifts to the genitals. Individuals who in some way were fixated at this oral stage of emotional development may, in the face of adult emotional conflict, return to that stage. Thus in the cases of hysterical overeating, genital excitation was displaced to eating, which again became highly eroticized. A further psychoanalytic contribution to this subject is the fact that the particular psychologic illness characterized by a return to this oral stage of emotional development is the depression. This furnishes a theoretical common denominator to the somewhat random clinical observations that overeating often seems to be a specific defense against depression and that when some fat people lose weight, they become depressed.

Summary: Obesity is a psychosomatic syndrome, the cardinal symptom of which is hyperphagia. Whatever metabolic, genetic, or biochemical factors may play a role in either the symptom or the syndrome, emotional elements of which the patient is often unaware contribute a large part. 50 references, 1 table.—*Author's abstract.*

Psychosomatic Study of Ulcerative Colitis. W. I. TUCKER, Boston, Mass. Lahey Clin. Bull. 7:72-77, Jan. 1951.

A psychiatric study was made of 15 patients with severe ulcerative colitis. In agreement with previous authors, it was found that 10 of the 15 patients had personality disorders considered neurotic prior to the onset of colitis and 5 manifested neurotic symptoms at the same time as the onset of colitis. In 9 patients personality characteristics of dependence and immaturity, with marked sensitiveness, inferiority feelings, conscientiousness and the tendency to suppress the expression of true feelings were present. Also, in 9 patients the onset of colitis could be associated with a change in a dependent relationship.

It cannot be concluded, however, that emotional disturbances constitute the cause of the disease or that it can be cured by psychotherapy. An appreciation of the emotional factors may be helpful in favorably influencing the cause of the disease. The difficulty of psychotherapy is pointed out, however, and case histories are given illustrating the necessity of surgical intervention to save life, prevent perforation, or control infection. 3 references.—*Author's abstract.*

Atopic Dermatitis: A Clinical Psychiatric Study. J. G. KEPECS, A. RABIN, AND M. ROBIN. Psychosom. Med. *13*:1-9, Jan.-Feb. 1951.

Twenty patients with atopic dermatitis, 16 males and 4 females, ranging in age from 18-38 years were studied. Observations were made in psychiatric interviews, often in numerous hypnotic sessions, and in a few cases during prolonged psychotherapy. Rorschach tests were administered to 15 of this group. The patients included in this study rigidly fulfilled the present day criteria for making the diagnosis of atopic dermatitis.

These patients fell into two main groups, (1) an emotionally labile, tending to hysteria, and (2) a rigid, tending to compulsiveness. Clinically, 14 cases were predominantly labile, 5 were predominantly rigid, 1 was unclassified. The Rorschach examiner independently arrived at the same grouping as the psychiatrist. The patients in the more labile group were afflicted with dermatitis for a much greater portion of their lives than were members of the rigid group. Of 13 hysterical cases, 12 had had eczema most of their lives, whereas 5 obsessive cases all had relatively long free periods.

The characteristic family constellation included a strongly hostile-dependent relationship to the mother. The characteristic major conflict was in the sphere of heterosexual relations. Strong strivings for sexual relationships were frustrated to various degrees. In the small, more rigid group, sexual problems were less on the surface, major tensions being related to work and responsibility with conflicting feelings about work situations leading to skin outbreaks. These more rigid patients appeared to have made better sexual adjustments than those in the large hysterical group in whom exacerbations of the skin disease occurred most characteristically in situations of real or potential heterosexual contacts.

Suppressed weeping was a prominent symptom. Weeping expressed a desire to overcome separation from a loved object, basically the mother.

Itching and scratching were manifestations of anger at mother figures or heterosexual objects. Because of guilt and fear this anger was handled masochistically, expressing itself in self-destructive scratching which may be secondarily erotized. Hostile attitudes were usually conscious, and much anger was expressed in interviews, dreams, and the Rorschach test. Objectively the patients were often timid and shy. They tended to handle their feelings by suppression, beneath which, in the more labile group, was marked emotional hyperreactivity close to the surface. 15 references.—*Author's abstract.*

Application of Psychology to Dermatology. R. M. B. MACKENNA AND I. MACALPINE, London, England. Lancet *260*:65-68, Jan. 13, 1951.

The authors warn against a too ready correlation of psychosomatic disease of personality types. One can find in the literature many inaccurate descriptions, as when patients are described as "obsessionals" without any indication whether by this is meant a patient suffering from an obsessional neurosis, or whether it is used to describe, with a convenient label, a normal character makeup. The same inaccuracy

applies to the term "depressive." Eczema is sometimes said to be due to aggressiveness or aggression, but it is not clear why a patient with abnormally strong aggression should be a skin patient rather than a criminal. The pertinent question to be raised is why, in any given case, is there an insufficient outlet for, or sublimation of, or mental defense against, aggression. The same criticism applies if it is stated that skin patients have increased masochistic tendencies. These they must obviously have because the skin is the main seat of masochism. The scientific problem lies in differentiating between primary and secondary masochism. Secondary masochism comes into operation when aggression can no longer be turned outward but is turned "in on the self."

A sound training in psychology and psychiatry is necessary. There should be a constant correlation also with the clinical and physiologic aspects. Study of emotional expression, both physiologically and pathologically is essential, and might conceivably throw light on some pathologic aspects of the dermatoses. 7 references. —*Author's abstract.*

Psychophysiologic Relationship of Asthma and Urticaria to Mental Illness. D. H. FUNKENSTEIN, Boston, Mass. Psychosom. Med. *12*:377-85, Nov.-Dec. 1950.

Six patients with mental illnesses and a history of asthma and one patient who developed urticaria during a psychosis were given a test of the autonomic nervous system revolving about the effect on systolic blood pressure of standardized doses of intravenous epinephrine and intramuscular mecholyl during a stated test period. The blood pressure patterns obtained were classifiable into seven groups. The subjective psychologic responses of the patients were also recorded. One patient was tested before, during, and after psychosis; 3 patients were studied during and after psychoses, and 3 only during their mental illnesses.

All the patients were free of asthma while mentally ill. In the 3 cases in which the psychoses cleared, the asthma returned. Paralleling these changes in the patients' psychologic states, there were also changes in autonomic reactions to the drugs. When the patients were not psychotic and having asthma, there was evidence of increased parasympathetic activity. This was seen in the marked drop in blood pressure associated with the long severe precipitated asthmatic attack following mecholyl. When the patients were mentally ill and not having asthma, they showed altered sympathetic nervous system function. Thus the parasympathetic effects of mecholyl were much less marked and much more quickly overcome. This was evidenced in the slight drop in blood pressure and the precipitation of a mild brief asthmatic attack. The altered sympathetic nervous system function during mental illness was of three types. This alteration is offered as an explanation of the freedom of patients from asthma at that time. Once the psychosis was over, the evidence of altered sympathetic activity was no longer obtained and the attacks of asthma returned. None of the material obtained supports any theory of the reason for the primacy of psychologic or physiologic factors. When the psychologic picture changed, the physiologic picture changed. It is felt that the psychologic and physiologic changes are two aspects of the patient's reaction to stress.

In one psychotic patient the diagnosis of "cholinergic urticaria" was established. Mecholyl, anxiety, heat, and cold all precipitated urticaria. When this patient recovered from his psychosis, but showed clinical evidence of an anxiety neurosis, neither anxiety nor any of the chemical or physical agents mentioned above precipitated the allergic state. 31 references. 7 figures.—*Author's abstract.*

A Psychosomatic Theory of Thyrotoxicosis. G. C. HAM, F. ALEXANDER AND H. T. CARMICHAEL. Psychosom. Med. *13*:18-35, Jan.-Feb. 1951.

Characteristically, patients suffering from thyrotoxicosis are chronically attempting to solve stressful situations of life by mature long range planning and growth. They do not regress to a dependent solution probably because of neurotic or real fear experienced in early life relationships. Their attempts to solve their problems in a self-sufficient manner were either forced on them as children or were utilized because they had already attained some degree of integrative capacity (successful technics) or were specially fitted for it by constitution or both. Whatever the basic reason, the chronic urge to pseudomaturation is clear. However, because of the prematurity of this need to mature they are unable to attain a realistic successful solution. Thus a situation develops in which the patient is chronically anxious because he cannot turn backward for dependent help because of fear of death, nor attain security by successful aggressive attainments. As a result there is constant anxiety and a chronic urge toward maturation.

The physiologic parallels that suggest themselves to this dynamic psychic state are, of course, signs of anxiety and thyroid stimulation. The anxiety is most clearly shown in the sweating and tremor which are ubiquitous and usually precede the thyrotoxic state. The excess activity of the thyroid may well be an emergency response in an attempt to supply the energy for maturation and mature accomplishment even though such activity is blocked on a realistic symbolic level.

The importance of emotional factors is a self-evident indication for psychotherapy, but reports up to this time, particularly concerning psychoanalytic treatment, are not sufficient to properly evaluate the possibilities of psychotherapy. On account of the seriousness of the medical implications of the disease, pharmacologic treatment with propylthiouracil or surgery is indicated. There are, however, clear indications that the effect of propylthiouracil varies according to the ability of the patients to accept gratification of their dependent needs—in other words—to have less urge to struggle toward self-dependence. Future development obviously lies in the systematic combination of surgical, pharmacologic, and psychotherapeutic measures.

In summary, then, the patients suffering from thyrotoxicosis are basically frightened people who since early childhood have constantly struggled against fear. They were pushed toward self-sufficiency at an age when it was beyond their emotional and physical capabilities. Their typical reaction to fear consists in constant efforts to master it by taking care of themselves. This is the most characteristic feature of these patients and as described above may explain the extra stimulus to the accelerating factors of bodily functions leading to the production of clinical thyrotoxicosis. 6 references. 3 tables.—*Author's abstract.*

Neurogenic Hypertension. Chemical Approaches to its Amelioration. F. F. YONKMAN, Summit. N. J. J. Michigan M. Soc. *50*:160-67, Feb. 1951.

In 1935 Heymans proposed that regional vasospasm might play an important role in the genesis of hypertension, but only in recent years has his hypothesis won rather general acceptance. If sympathetic predominance, or marked sympathetic control of certain blood vessels to the point of vasospasm, be an important primary etiologic factor leading to the production of many of the chemical components found to be associated with experimental and some clinical hypertensives, why not approach the problem from the point of view of blocking such sympathetic predominance by effecting an adequate adrenergic blockade.

Various agents have been tried. The concentrated preparations of veratrum viride cause a favorable degree of hypotension in many patients, but there are indications that a certain degree of tolerance or refractoriness develops quite readily. Regitine and benodaine are rather potent adrenergic blocking substances, and they would seem to be of special use in a limited field such as the detection and surgical removal of pheochromocytoma. It has been demonstrated by Freis that regitine might be of value in hypertension if given in an alternating manner, before the refractory state develops, with some other type of hypotensive medicament which would produce a drop of blood pressure by a mechanism different from that of regitine.

In moving from the peripheral blocking area to a central point of attack, particularly in the region of the hypothalamus, there is now in clinical trial a hydrazinophthalazine derivative (C-5968). Although this drug is partially adrenolytic, that is, antagonistic to the effects of adrenaline, relatively large doses of it are required to produce this type of action. Reubi has demonstrated the favorable effect of C-5968 on renal clearance. Myers has confirmed this in some patients but has found it lacking in others. Schroeder has seen some favorable effects of the drug in neurogenic hypertension, and he has been sufficiently encouraged to pursue the problem.

The problem of neurogenic hypertension is complex, and there obviously are many approaches to its solution. Some of these have been presented and it would seem that one of the most hopeful approaches might be that of properly applying the principle of adrenergic blockade, either through a central, ganglionic, or peripheral point of attack, with the hope that a labile neurogenic hypertension may not proceed to the point of a fixed nephrogenic hypertension and its disturbing sequelae. 27 references, 13 figures, 3 tables.—*Author's abstract.*

Life Situations, Emotions and Exercise Tolerance. CHAS. H. DUNCAN, I. P. STEVENSON AND HAROLD G. WOLFF, New York, N. Y. Psychosom. Med. *13*:36-50, Jan.-Feb. 1951.

In 35 subjects the circulatory dynamics at rest and after exercise were studied during different emotional states. In addition to observations made on different days over periods up to 18 months, exercise tolerance was tested in some subjects before and after a rapid change in emotional state occurring in an experimental interview. Included in the study were three groups of subjects: 8 healthy controls without complaints or evidence of cardiovascular disease, 16 patients with hypertension or struc-

tural heart disease of various etiologies, and 11 patients with neurocirculatory asthenia. Blood pressure, heart rate, stroke volume (low frequency, critically damped ballistocardiograph) and cardiac index (cardiac output in liters/min./meter^2 body surface area) were determined in the resting state and at intervals of two, three, five, and ten minutes after a standard two-step exercise (Master).

A close correlation was found between the emotional state and the resting level of cardiac activity. Stressful life situations associated with attitudes of preparedness and feelings of anxiety or resentment were accompanied by cardiac hyperactivity, with heart rate and/or cardiac index increased in comparison to the values found during periods of security and relaxation. Situations evoking despair and discouragement were accompanied by cardiac hypoactivity, with heart rate and cardiac index below the usual values. A similar relationship was observed between the emotional state and the circulatory response to exercise. During periods of anxiety or resentment exercise usually resulted in greater and more prolonged increase in heart rate and/or cardiac index than did the same exercise performed during periods of security and relaxation. This objective evidence of exercise intolerance was commonly accompanied by complaints of dyspnea, palpitations, weakness, or other discomfort on exertion. During mild life stress the resting heart rate and cardiac index were sometimes unchanged but exercise tolerance was impaired.

The correlation between emotional state and circulatory dynamics at rest and in response to exercise was observed in all three groups of subjects. In the healthy controls the fluctuations in emotional state and in circulatory dynamics were relatively small. The patients with neurocirculatory asthenia exhibited greater variability in emotional state and in cardiac activity, and the association of pronounced anxiety, cardiac hyperactivity at rest, and exercise intolerance was frequently observed. During periods of relative security and relaxation, however, both the resting values and the response to exercise were observed to return to normal, indicating that neurocirculatory asthenia is a variable functional disturbance. In the subjects with structural heart disease, exercise intolerance was found to be a product of the fixed structural defect and the variable influence of anxiety and resentment. During periods of relative relaxation there was diminution in cardiac activity at rest and significant improvement in exercise tolerance, leaving a residual impairment attributable to the structural disease. 12 references. 10 figures.—*Author's abstract.*

PSYCHIATRIC NURSING, SOCIAL WORK, AND MENTAL HYGIENE

An Analysis of 271 Consecutive Cases Seen by a Psychologic Service Unit in Milwaukee. R. HEADLEE, Milwaukee, Wis. Wisconsin M. J. *50*:161-67, Feb. 1951.

There is, in general, a great dissatisfaction within the membership of the medical profession in regard to the services offered by psychologists and, for that matter, by psychiatrists. Some of this dissatisfaction may be due to the incomplete knowledge available in the sciences of psychology and psychiatry. It must be remembered that both are relatively new areas of study and are often torn by abstract and diffuse opinions and still subject to mysterious and vague expectations, sometimes even by prac-

titioners. Some of the difficulty may in part be due to a misunderstanding as to just what can be reasonably expected and how these goals can be reached. This paper attempts to analyze a number of cases seen by the staff of a private clinic in an attempt to clarify (1) just what motivations existed for referrals; (2) what was actually done; and (3) how to evaluate the service in terms of specific objectives. In view of a general lack of information plus a good deal of misinformation about the function of a psychologic service clinic, a total of 271 cases seen by a private clinic in Milwaukee are reported. The sources of referral plus the motivations for the referrals are discussed first. Then some indication is made of the scope of treatment offered, including psychologic testing and treatment and a wide variety of psychiatric methods. The last section is a discussion of results obtained, divided into one group where no benefits were gained, one group in which limited and specific objectives were reached, and one group in which a combind psychologic and psychiatric approach was found to be effective. A number of cases are described in some detail for illustration of various points. 6 references.—*Author's abstract.*

Psychiatric Aspects of Civil Defense. KURT FANTL. Am. J. Psychiat. *107*:488-92, Jan. 1951.

This is an outline of a program designed to reduce the drain of predictable mental breakdowns on civil defense machinery.

1. *Panic control.*—Some panics were touched off in England by accidents in unlighted shelters. Reactions of many Japanese after the atom bomb was used suggests that fear of the bomb may cause panic. *Recommendations:* Provide adequate shelters, equipped with flashlights. Inform the people of expected danger but also show them a master plan for coping with it so that the information will cause minimum anxiety. After disaster strikes, disseminate information quickly through known sources. Since panic is infectious, isolate and treat acute psychiatric casualties in mobile units. Strengthen morale in the bombed area by having uniformed civilian defense members appear quickly and by supplying hot food and laundry facilities.

2. *Prevention of persistent psychiatric disorders from exposure to bombing.*—Approximately 4 per cent of civilians in bombed English cities became acute psychiatric casualties. One-third of those in destroyed houses showed persistent symptoms. *Recommendations:* Have mobile units for immediate treatment, since traumatic neuroses become more stubborn with time. Rehabilitate those who lose homes or jobs. These losses played a greater role in breakdowns in England than fright from actual bombing.

3. *Prevention of psychiatric disorders in evacuated children.*—Statistics show more disturbances among evacuated than among bombed children. Reaction to evacuation was determined by suddenness of separation from parents, suddenness of change to new environments, and by the type of placement and organization. Abrupt separation and change resulted in serious reaction, even death in infants. Having volunteers offer individual mothering to infants in large institutions and organizing in forms of family groups lessened damage of mechanical mass care. Parental visits

helped children vent feelings normally and overcome traumas of separation. Trained workers were needed to handle difficulties among children, mothers, and boarding mothers. Selection of boarding mothers similar in background to the child's own mother proved important. *Recommendations*: Plan evacuation in advance, using friends, relatives and paid volunteer mothers in safe areas, and enlisting the aid of groups experienced in training and housing children. Train key people to work with groups of children in mental health education. Acquaint the children with their potential new homes beforehand. Organize transportation to provide parental visits. Establish screening centers to determine emotional fitness of children for placement, treatment centers for disturbed children, and guidance centers for mothers and volunteer mothers. Enlarge staffs of child guidance clinics for outpatient treatment and open new ones. Provide information centers to keep parents and children in touch and eliminate upsetting uncertainty. Organize recreation. Provide visits by psychiatric social workers to boarding homes.

4. *Special problem of the aged.*—All aged people unable to do defense work should be evacuated. Preparations for their care should be made, since even now 38 per cent of admissions to mental hospitals are from this group.

5. *Continuation and expansion of preventive psychiatric program.*—Statistics on rejections for military service, industrial accidents, hospital admissions, etc., indicate that mental health is our major national health problem. Expansion of mental health programs will strengthen us in peace as well as in war. 18 references.—*Author's abstract.*

Other Article

Human Relations—International and Local. W. OGDEN, St. Paul, Minn. Minnesota Med. *34*:213-15, 217, March 1951.

PSYCHOANALYSIS See Contents for Related Articles

PSYCHOLOGIC METHODS

Memory Studies in Electric Convulsion Therapy. II. The Persistence of Verbal Response Patterns. M. WILLIAMS. Chichester, England. J. Neurol, Neurosurg. & Psychiat. *13*:314-19, Nov. 1950.

From previous work and experiments, it had been suspected that repetition of a response and recollection of the stimulus originally arousing it, were two separate aspects of memory, affected differently by electric convulsion therapy (E.C.T.). An experiment was designed to test this hypothesis. Thirty-seven subjects were shown, and asked to name, some pictures shortly before undergoing E.C.T. In the early post-convulsive confusional state they were shown other pictures, some of which were similar to those seen before but of a much sketchier nature. Although unable to recall the pretreatment pictures, the patients named those resembling the first series

very much more readily than they did the others. A similar result was found when the first series was shown during the early confusional period to 9 patients and followed closely by the sketches.

A group of 12 matched controls was given the same test while fully oriented. Their responses showed the opposite effect. The ambiguous pictures corresponding to the good ones already named were responded to more slowly than the others because of the subjects' comparisons between the different pictures. 8 references. 1 figure. 2 tables.—*Author's abstract.*

Reitman's Pin-Man Test. A Means of Disclosing Impaired Conceptual Thinking. F. REITMAN, AND J. P. S. ROBERTSON, Coulsdon, England. J. Nerv. & Ment. Dis. *112*:498-510, Dec. 1950.

The Pin-man Test, devised by Francis Reitman to disclose cognitive changes following prefrontal leukotomy, consists of schematized human figures strongly suggesting by their posture the expression of different emotional states. The subject is required to state what feeling each figure expresses and to draw one of them from memory. Reitman observed that patients who had given abstract responses before leukotomy tended to give more descriptive or concrete ones after the operation. In order to investigate the discriminative powers and consistency of the test, it was applied to 108 normal subjects and to samples of 30-40 patients from each of the following diagnoses: senile dementia, organic brain disease, chronic deteriorated schizophrenia, and oligophrenia. An amplified system of marking the responses was adopted in terms of 10 levels, combining three main variables: abstraction of formulation, ascription of feeling, and perceptual organization. A similar marking system was applied to the drawings according to degree of schematization, resemblance to the original, and effectiveness in representing emotional expression. The test was found to yield three criteria by which intellectually deteriorated patients (senile, organic, or schizophrenic) might be successfully discriminated from nondeteriorated persons (normal or schizophrenic). Suggestive differences were also found among the various classes of patients, especially between the organic and deteriorated schizophrenic cases. The test showed a high degree of consistency according to the split-half and test-retest correlations. 11 tables.—*Author's abstract.*

A Note on the "Father" and "Mother" Cards in the Rorschach Inkblots. BERNARD MEER, Philadelphia, Pa. J. Consult. Psychol. *14*:482-84, Dec. 1950.

The present study was designed to test the hypothesis that normal adults will designate Card IV as the "Father Card" and Card VII as the "Mother Card" with frequencies that are significantly greater than chance variation. Fifty college students who were administered individual Rorschachs were asked to select two blots from the ten, one to represent a "Father Card" and one a "Mother Card." Results indicate that Card IV and to a lesser extent Card II were chosen as "Father Cards" and Cards VII and X were chosen as "Mother Cards" with a statistically significant frequency.

As a consequence of the above results, the authors have incorporated the identification of the "Father" and "Mother" cards as part of the "testing the limits" in their routine Rorschach administration. Identification of Card IV as "Father Card" has been consistently confirmed with a neurotic population. Card VII's status as the "Mother Card" has been less frequently observed. It has also been found that, regardless of the cards selected, valuable information on the nature of the subjects' parental attitudes may be elicited by requiring them to give the reason for their choice of "Father" and "Mother" cards.

Caution should be taken in interpreting the above results. It cannot be definitely concluded that all persons who identify Card IV as the "Father Card" respond to it as they would towards their fathers. However, the fact that certain cards are selected as parental cards by normals and neurotics with greater than chance frequency offers some support to certain clinical interpretations of content material in the Rorschach Inkblot test. 5 references. 1 table.—*Author's abstract.*

PSYCHOPATHOLOGY

The Factor Omnipotence in the Development of Paranoid Reactions. M. HYROOP, Fort Supply, Okla. Am. J. Psychotherapy 5:38-44, Jan. 1951.

Psychotic patients whose symptoms are characterized by paranoid reactions are difficult to treat successfully by psychotherapy. The therapist usually has in mind that the dynamism found predominantly in paranoid thinking is projection. The patient is thought to be filled with hate and to be projecting his own hostile impulses on the individuals in his environment. The author suggests that two other dynamisms, namely identification and projection, are more important and more useful for the purpose of psychotherapy.

To understand the mechanism of paranoid thinking, the factor of omnipotence must be taken into account. It has been postulated that the newborn infant has a sense of omnipotence, which he never entirely relinquishes, but which has to be modified as he becomes aware of the distinction between himself and the outside world. The manner in which the child modifies his demand for omnipotence and handles his helplessness in the face of reality determines the degree of success he will have in manipulating and adjusting to his environment in adult life. It might be said that a psychosis is a short cut to omnipotence.

It is accepted by many writers that identification with a parent figure is the basis of much of the learning acquired before adult life. The purpose of the identification is to achieve the apparent omnipotence of the individual with whom the child identifies. There may be partial identification with many people at one time, and there is a constant change in identifications throughout life, always with the purpose of achieving omnipotence.

The author uses the term *introjection* to mean, specifically, a stable form of identification that does not change throughout the individual's life, usually identification with a hostile, dominating parent figure. Identification seems to occur when the parent

is dominating but not hostile, and introjection when he is both hostile and dominating.

The need to test omnipotence is always present and is attempted by various means, one of which, gambling, is of almost universal appeal.

The paranoid reaction is predicated to develop in a child who has been under the domination of a self-righteous, cold, inexorable parent figure, whom he introjects for the purpose of escaping the realization of his own helplessness and of achieving, by proxy, the omnipotence the parent seems to possess. A psychosis develops when the individual cannot maintain the seeming omnipotence of the parent and still remain in contact with reality.

The object of psychotherapy is to attempt to encourage an identification with the therapist and to weaken the tie to the apparently omnipotent figure. The patient can be shown, to a limited extent, that omnipotence is not necessary and, by the acceptance of "partipotence" (Silverberg), can regain contact with reality. 16 references.—*Author's abstract.*

TREATMENT

general psychiatric therapy

Objective Evaluation of Therapeutic Procedures in Mental Diseases. WILLIAM MALAMUD, JUSTIN M. HOPE, AND FRED ELMADJIAN, Boston, Mass. Boston Med. Quart. 2:1-7, March 1951.

The practical application of a rating scale for the quantitative recording of clinical changes in the course of mental diseases is presented. This rating scale consists of 22 functions most commonly used in the mental examination. They fall into three groups, depending on how they can be recorded. The first group consists of the functions that can be observed during the physician's interview with the patient (appearance, motor activity, mimetic expression, responsiveness, awareness, speech, associations, thought processes, subjective reorganization, memory, and insight). The second group consists of the functions that are experienced subjectively by the patient and a description of which can only be obtained from the patient himself (mood, affect, feeling, and perception).

In the rating scale, the characteristics of each one of these functions are described as they are observed at the time of examination. These are evaluated in comparison with a *base line* which represents the characteristics of each one of these functions as they were before the onset of the illness and are obtained from the history. Deviations from this base line provide the record of the degree of pathology which exists at the time of observation. These deviations are recorded on either side of the midline (base line) depending upon the direction of the deviation. On one side we have the centripetal deviations (a withdrawal of the person from contact with the outside and a turning inward of his activities). On the other side are the centrifugal deviations (pathologic increase of outwardly directed activities). Where the characteristics of any given function coincide with the base line, the score is zero. The farther these

characteristics deviate from the base line, the higher is the score, which is graduated up to six. The total of all the scores of the 22 functions represent the index of the degree of pathology at any given time.

This scale has been tested and standardized on a number of patients, and it was ascertained that different observers rating the patients independently show a statistically valid correlation. It is felt, therefore, that this scale, if used by persons who are properly trained in the application of the scale, can give reliably uniform results. In the present study this rating scale was used to determine the effects of a series of endocrine preparations in the treatment of schizophrenia. These drugs included the following: adrenocorticotrophic hormone (ACTH), adrenal cortical extract (ACE), desoxycorticosterone (DCA). Each one of these drugs was used over a period of time on a number of patients and this was matched with observations in patients suffering from illnesses similar to those in whom the drugs were used but given placebos.

The results show that no beneficial effects were obtained from the use of any of these drugs in the particular cases that were treated in this study. It is pointed out that this does not in any way justify the conclusion that steroid hormonal substances may not eventually prove to be beneficial, but that further studies are necessary to determine the particular type of hormone which could be beneficially used, where a deficiency of this hormone can be demonstrated. 7 references. 8 figures. 2 charts.—*Author's abstract.*

Factors in Psychotherapeutic Success. IVAN N. MENSH, AND JANET M. GOLDEN, St. Louis, Mo. J. Missouri M. A. *48*:180-84, March 1951.

A sample of 575 male veterans in psychotherapy in a Veteran's Administration Mental Hygiene Contract Clinic during the January 1946 to June 1948 interval was studied for various factors and their relationship to the number of therapy hours experienced by the patients. The typical or model patient seen in the clinic was in his twenties, married, white and a veteran, with from two and one half to three years of service including combat experience. He was other than an only child or oldest or youngest of his siblings, and had been reared in an intact family situation. The veteran had applied for a pension because of his disability, had been referred to the Clinic by a Veteran agency, was accepted for treatment in the winter of 1946 after an intake interview by a social worker, was treated less frequently than weekly but more often than monthly, and no other member of his family had been brought under treatment. Once under treatment, he broke no appointments before breaking treatment; therapy was terminated by him rather than by the therapist in the spring of 1947; the therapist noted that the veteran's psychiatric status had not improved but did not note what disposition of the case followed treatment; and the illness was diagnosed as psychoneurosis.

Nearly two thirds (63 per cent) of the 575 veterans came for therapy fewer than five hours, 20 per cent came from five to nine hours, 11 per cent came from 10 to 19 hours, and only 4 per cent came for treatment 20 or more times. Chi-square tests of significance of difference among the four groups for the various factors studied

yielded information on significant relationships between patient and therapy variables and number of therapy hours experienced by the veterans. For various of the four groups these relationships were established for branch of service, birth order, family situation in which the veteran was reared (psychologic milieu), application for pension, season of the year and the year when therapy began, other family members treated, number of appointments broken including the final appointment, psychiatric diagnosis, and change in psychiatric status.

Finally, of the 352 veterans who were rated by their therapists as improved psychiatrically at the close of treatment, 49 per cent came fewer than five hours, while 75 per cent of the 223 unimproved veterans came for this brief a period. More than half of the former group were treated five or more times, a proportion twice that of the 25 per cent of the unimproved group who came this often, a 2 to 1 ratio. 1 reference. 2 tables.—*Author's abstract.*

drug therapies

Metabolic Studies in Gavage and Parenteral Feeding During Prolonged Narcosis Therapy. P. M. RIKE, Pittsburgh, Pa., E. A. LOOMIS, JR., Philadelphia, Pa., AND J. S. CLAPP, Erie, Pa. Am. J. Digest Dis. *18*:92-96, March 1951.

The nutritional date obtained from a study of 26 patients who were subjected to continuous sleep by Cloetta's mixture for an average duration of 17.5 days in the treatment of various psychiatric disorders are reported. One-half were fed by gavage and the others by intravenous therapy of protein hydrolysate and glucose.

Protein, carbohydrate, and fat metabolism, as reflected by plasma and serum levels of the various nutritional substances, were fairly adequately maintained by both methods. The chief metabolic alterations were a decrease in the serum proteins, especially the albumen fraction, disturbed carbohydrate metabolism in one-half of the cases, and a lowered cholesterol level in the protein hydrolysate-fed patients. Two-thirds of the patients had an elevated N.P.N. and 50 per cent had a transient albuminuria.

It would appear in the over-all picture that the sedation in prolonged narcosis therapy influences metabolic processes not only of the central nervous system but also the liver, kidneys and endocrines. 22 references.—*Author's abstract.*

Ether: An Estimation of Its Use in the Treatment of the Psychoneuroses. D. GILMOUR, Birmingham, England. J. Ment. Sc. *97*:148-58, Jan. 1951.

Ether has its place in the treatment of ordinary psychoneurotic illness, not dependent on specific external experience, such as battle trauma, but arising from the everyday difficulties and psychologic maladjustments met with in ordinary psychiatric practice.

A series of outpatient cases were treated with ether. It was realized that in many cases it would be impossible to obtain an actual abreaction, and the object was simply so to loosen the patient's highest inhibitions that expression would be given

to the thoughts and fears underlying the illness more rapidly than by ordinary methods of treatment.

Technic is described and emphasis laid on the ease of administration and lack of complications. The depth to which the patient should be taken can be varied as rapidly as required during treatment. A rapid induction tends to set up resistance. No other person present is desirable during treatment, but sometimes a patient develops a true abreactive state, in which case it may be necessary to call assistance.

The problem of obtaining adequate notes has been solved in various ways: a stenographer taking shorthand notes; the use of a contrivance to hold the ether mask, thus freeing the doctor for note-taking; or the use of a wire recorder. Their respective merits and disadvantages are discussed.

Actual cases are described to show the danger and value of ether in different types of illness. It was found that in certain cases ether could cause the patient to produce material before he was ready to accept it, and his condition was made worse.

On the other hand, anxiety states, hysterias, and even a case of psychopathic personality with aggression were materially helped.

In order to produce a cure, the therapist must secure an emotional acceptance by the patient, apart from an intellectual one, of the explanation of his illness. Ether analysis is particularly successful in securing this flash of understanding, and in enabling the patient to link in his mind the symptoms with the material he has produced. It is for this same reason that ether may be potentially dangerous.

It is suggested that, if a patient during a first ether session begins to talk of psychologic traumata that have occurred during the first ten years of life, then the session should be stopped at once or the patient gently brought back to some recent events and the session ended on an innocuous note. The second is the better method.

It is not claimed that ether analysis is a substitute either for ordinary psychotherapy or for psychoanalysis, but it is claimed to be a valuable aid during ordinary treatment in many suitable cases. Its use may reduce treatment by months as well as the number of sessions required. This is important, economically and practically, to both patient and doctor.

Finally, it is stated that ether analysis must always be followed by ordinary psychotherapy, either between each ether session or after two or more such sessions according to the case. 1 reference.—*Author's abstract.*

Psychosomatic Medicine in U.S.S.R.—Sleep Cure (*La Medecine Psychosomatique en U.S.S.R.*). C. BRISSET, AND V. GACHKEL, Paris, France. Presse Med. *59*:465-66, April 7, 1951.

In France the sleep cure utilized in psychiatric cases consists in a chemical narcotherapy over a period of 5 to 7 days; it is generally reserved for severe syndromes such as acute mania, obstinate anxiety status, or toxicomania cure.

The writers in a comparative study of the French method with the Russian method show that the latter differs from the former in the technic for inducing sleep, the duration of the sleep, the wider indications for its use, and by theoretical justifica-

tions which reveal certain doctrinal aspects of Soviet medicine; it is not a narcosis but a quasi-physiologic sleep; the cure lasts two to three weeks. Its application is extended to such painful conditions as causalgia, doloritic amputation stump, digestive ulcer, hypertension, obstinate dermatoses.

In a second paper the writers will give a description of psychosomatic medicine as derived from the Russian works, particularly of Bikov's School, and a study of the theoretical concepts on which this medicine is based.

The present paper dealing with the sleep cure itself includes the following headings: I. Scientific bases of the sleep cure; II. Object of the cure and role of the sleep; III. Means for inducing the sleep, and IV. The cases amenable to the treatment.

Narcosynthesis—An Invaluable Psychiatric Technique. L. TILKIN, Chicago, Ill. Illinois M. J. *99*:85-86, Feb. 1951.

This article is prepared with the specific intent of presenting to the general practitioner one specific psychiatric technic, narcosynthesis.

There are several fields of specialized medicine, such as surgery and obstetrics, wherein the physician can participate directly in the specialized procedure in conjunction with the consultant. However, there are other fields of medical specialties, such as psychiatry, in which the general practitioner is willing to accept a basic knowledge of the technics that are involved and allow the direct management of the case in its entirety to the psychiatrist. Thus, correspondingly, it is the professional responsibility of the physicians in the specialties of medicine to keep the general practitioner abreast of all modern technics at their disposal.

The term *narcosynthesis* refers to the technic of the use of an intravenous injection of a barbiturate, preferably sodium pentothal or sodium amytal, to artificially induce a state of seminarcosis and relaxation that precipitates in the diminished control of the patient's mental processes for the specific purpose of obtaining an uninhibited state of mental content and to facilitate in the psychiatric interpretation and analysis of the subject matter thus elicited.

Narcosynthesis serves a dual purpose in that it is diagnostic as well as therapeutic.

The outstanding indications for the use of narcosynthesis are anxiety states and hysterical reactions. In the psychoses, narcosynthesis can be used in conjunction with other psychiatric therapies but should never be used to replace other necessary and indicated treatment specific for the psychoses. 4 references.—*Author's abstract.*

psychotherapy

Group Therapy. A Short Survey and Orientation with Particular Reference to Group Analysis. S. H. FOULKES, London, England. Brit. J. M. Psychol. *23*:199-205, 1950.

Developments of group psychotherapy in the United States are briefly reviewed, with particular reference to the work of two pioneers in this field, T. Burrow and J. L. Moreno, and the more analytic approach of Paul Schilder and Louis Wender. Group psychotherapy in England has, however, been developed independently, in

particular, on the basis of the principles followed by the author in his "Group Analysis" or "Group Analytic Psychotherapy." These principles have directly or indirectly profoundly influenced all group psychotherapy in this country, especially that of analytic orientation, and appear to find increasing recognition in the United States as well. They culminate in what the author calls the "Group Analytic Situation," of which the essential operation is briefly described. The author and his closer co-operators aim at a comprehensive view of group dynamics and do not, as for instance is done by some workers at the Tavistock Clinic in London, concentrate almost exclusively on the "here and now" of the situation and on the relationship of the group to the therapist.

The group analytic approach holds it axiomatic that everything happening in the group involves the group as a whole, as well as each individual member. It can emphasize the group more for its own sake or use the group in the interest of the individual's treatment. A new concept introduced in this paper is that of the "occupation" of the group. The manifest and the latent occupation must be distinguished. From an analytic point of view the occupation can be used defensively as a screen. The group analytic group is left to devise its own occupation—in this case, its topic of discussion—spontaneously. The conversation thus develops as an *ad hoc* response to the latent preoccupation of the group and the "screen" is, as it were, kept transparent by the free association of ideas and the lifting of social censorship.

It is proposed to distinguish three broad categories of group therapy:

1. Group activities of all sorts, which can be used for therapeutic purposes.
2. Group activities deliberately arranged with therapeutic intent. Good examples of this are Slavson's Activity Group Therapy or Bierer's Situational Group Therapy. If the "*occupation*" is considered essential, we are dealing with occupational therapy in groups; if, on the contrary, the "*group situation*" is considered essential, its occupation incidental, we have to do with true group therapy.
3. Group psychotherapy, and in particular group analytic psychotherapy. These must fulfil three conditions: (a) that the Group is the basis of the therapeutic process and its members participate actively in this process, (b) that verbal communication and formulation are the principal occupation of the group, and (c) that full justice is done to the individual members and their interaction.

Group psychotherapy, and in particular group analysis, can be applied to three areas: (1) to treat particular groups with regard to their specific group problems, (2) to treat individual problems in their native setting, for instance, a family group, and (3) to treat an *ad hoc* group of patients formed merely for the purpose of treatment. This is what is usually meant by a psychotherapeutic group in the narrower sense. 27 references.—*Author's abstract.*

Restructuring Social Perceptions: A Group Psychotherapy Technique. ABRAHAM S. LUCHINS, Montreal, Canada. J. Consult. Psychol. *14*:446-51, Dec. 1950.

A description is given of six procedures which the author employed with five groups of patients participating in group psychotherapy. The procedures included (1) recording the conversation of the patients during the two hour informal group

session, with encouragement to the patients to express their feelings concerning the roles played by particular patients when it was played back; (2) recordings of other sessions were played in order to give the patients some idea of how the character of the group structure and activity varied in different sessions; (3) patients were encouraged to tell what they thought other patients thought of them; etc. The aim of these procedures was to make the patient better aware of the structure of social situations, of the roles he and others play in these situations, and of the bases of his impression of himself and others' impressions of him.

After several such group meetings the patients appeared to be more aware of their expressive movements and better able to control them. Each of the patients expressed surprise at one time or another over the discrepancy between his opinion of himself or his opinion of what another thought of him, and this person's expressed opinion of him, and at times was motivated to seek the cause of the discrepancies. The effects which seemed to be related to the use of the procedures were further described, and several problems were raised for future research. Arguments raised against the above technics were then considered, and their use was compared to the methods of Dr. Alexander Wolf's group psychoanalysis. 7 references.—*Author's abstract.*

Reinforcement Therapy: A Re-Evaluation of the Concept of "Insight" in Psychotherapy. M. J. FREEMAN, Los Angeles, Calif. Am. J. Psychotherapy 5:32-37, Jan. 1951.

The validity of the assumption that "insight" is the essential goal of psychotherapy is open to question. Roger has contended that intellectual insight alone is insufficient to bring about the desired reintegration of the patient, and therefore he emphasizes the need for "emotional acceptance." However, Rogers readily admits that from a psychologic point of view it is not as yet entirely clear as to what is meant by the term. It is his contention that apparently emotional acceptance occurs when the patient himself gains the insights in lieu of the counselor's efforts to impose his own perceptions upon the patient.

Alexander and French have already taken issue with the proponents of the insight theory by claiming that in many cases, "It is not a matter of insight stimulating or forcing the patient to an emotional reorientation, but rather one in which a very considerable preliminary emotional readjustment is necessary before insight is possible at all." Clinical psychologists who have had to work intensively with emotionally disordered patients would seem to favor French and Alexander's observations that in spite of insights gained, the patient somehow presents resistance to a conversion of his insights into reality adjustments.

What appears to be vitally necessary by way of psychotherapeutic technics is the development of clinical facilities which will lead not only to the establishment of necessary and more adequate formulations of insights but also organismic reinforcements of these insights. Accordingly, an organismic reinforcement therapy is recommended which would make possible more adequate learning.

The extent to which reinforcement therapy may be developed is delineated as follows:

1. *Diagrammatic Reinforcement.*—The objective here is to lend a more mean-

ingful and effective configuration to insights obtained by the patient. The use of diagrammatic procedures, such as a blackboard for graphical demonstrations of concepts or insights will do a great deal to reify the psychotherapeutic principles. Advantages obtained here are: (a) Take into account individual differences in factors of spatial relations, visual memory, and in general in concrete and abstract factors of intelligence, (b) they have the attributes of reifying highly abstract and theoretical symbols, (c) they provide for greater participation of the organism, (d) yield better retention, and these graphic presentations help the learning to become configurationally and organismically patterned.

2. *Psychofilms*—The vast potentialities which exist in the field of clinical psychology and psychiatry for effective psychotherapy through the medium of films cannot be overestimated. Essentially these are the potentialities: (a) The portrayal of ego attitudes for purposes of patient identification, (b) the presentation of clinically dramatized behavior for bringing about considerable ego involvement which should provide rich material for clinical observations, (c) provide necessary insights into the origins and processes of psychosomatic illness, and (d) the patient's symptomatic constellations could be sufficiently dramatized to bring about effective ego shifts in his behavior.

3. *Situational Reinforcement*—The importance of this aspect of therapy lies in the development and extension of laboratory technics for use with patients. Such reinforement therapy could become applicable to a wide variety of synthetic situations: anxiety provoking stimuli with attendant therapy for tension reduction, the presentation of frustrating stimuli in order to observe the patient's disintegrating behavior and combat it simultaneously by appropriate re-education, and adequate re-education of the patient's efforts to effect a successful organismic synthesis.

4. *Reinforcement Therapy*—The effectiveness of reinforcement therapy in the home has already been demonstrated by the present author. The use of this type of therapy with children has resulted in the development of a healthy organization of ego attitudes based upon causal (reinforcing) therapy. Not only are insights formed out of such ego shifts, but these new perceptual relations are supported by the necessary psychophysical readaptations. Of particular significance here, in the light of reinforcement therapy, is the fact that the child is subjected to a certain amount of frustration in order that he may learn how to handle his frustrating situations. The successful results which have been obtained through the application of this home control room technic argue in favor of a learning theory based upon organismic involvements. 18 references.—*Author's abstract.*

the "shock" therapies

Insulin Coma Therapy of Schizophrenia: Some Critical Remarks on Dr. Sakel's Report. W. MAYER-GROSS, Dumfries, Scotland, J. Ment. Sc. *97*:132-35, Jan. 1951.

There is no justification for considering Sakel's treatment as "specific" or "ideal" for schizophrenia because, even if applied expertly in cases within the first year of

illness, 40 to 45 per cent of schizophrenics do not respond to this therapy. In a recent follow-up study of 454 schizophrenics treated at Crichton Royal Hospital between 1939 and 1947, the percentage of recoveries after three years among the patients ill under one year was 56.9 if treated by hypoglycemia, as against 34.5 in a control material of the same type of cases not so treated. Insulin therapy neither provokes nor prevents relapses.—As the results are better than in any other kind of therapy so far available, every early schizophrenic should be given the chance of insulin treatment. Because of the costly and complicated technic and the dependence of results on expert supervision, insulin treatment centers should not be too small, and they cannot be improvised for occasional use.—Spontaneous hypoglycemic convulsions may occur in any patient undergoing hypoglycemic treatment. These fits do not differ from those induced by metrazol or electricity. Fits are not indispensable to the success of insulin therapy; of 202 patients who have remitted without relapse to date (9 years' follow-up), 64 cases had neither hypoglycemic nor induced convulsion.

The four indications for the use of induced convulsions in insulin therapy are: (1) preparative—to achieve the co-operation of resistive, negativistic, restless, excited, and stuporose patients; (2) provocative—to induce a coma in patients in whom progressive doses of insulin and correspondingly low blood-glucose levels do not produce the expected cerebral reaction of coma; (3) for combating affective admixtures of the schizophrenic clinical picture; (4) for speeding up recovery in those patients who, after initial improvement, remain on the same level for three to four weeks without further progress.

Sakel's ideas that antagonism exists between convulsion and coma or that coma is able to fix the results of convulsion therapy are not hypotheses of heuristic value. 2 tables.—*Author's abstract.*

Further Observations on the Use of Combined Photic and Chemically Induced Cortical Dysrhythmia in Psychiatry. P. M. O'FLANAGAN, J. I. TIMOTHY, AND H. G. GIBSON, St. Albans, England. J. Ment. Sc. 97:174-90, Jan. 1951.

This paper reports the results of further investigations into the effects of photoshock. The aim of the treatment is to produce sufficient cortical summation by means of the production of myoclonic responses (M/Rs) instead of the full convulsions used in E.C.T.

The M/Rs are produced by the intravenous injection of subconvulsive doses of hexazol (metrazol or cardiazol may be used instead) and exposing the patient with eyes closed to a flickering field derived from a Strobe lamp at a flash frequency varying from 10 to 30 per second until myoclonus is produced.

The myoclonus is maintained for approximately 15 to 30 seconds or until the myoclonus becomes too intense. The therapeutic period is from five to ten minutes of myoclonus per session, three times a week.

Various means of facilitation are described and also the method to produce full convulsions.

The subjective experiences are reported, and they would appear to be the result of central autonomic activity. Apprehension did not cause any patient to refuse treatment. Thirty-five patients were treated. No attempt is made to analyze the results, though the best results occurred in the depressive syndromes.

Varying types of physical treatment are discussed, and it is suggested that the common therapeutic factor is the production of seizure discharges in the cerebrum, and this is linked to the therapeutic effect. Photoshock is suggested as an alternative to E.C.T., producing the effect by summation of seizure discharges at each session.

In some cases a degree of recovery occurs which cannot be improved without a full convulsion. The level of maximum stimulation is probably in the diencephalon.

Tables analyzing the effects of photoshock on the E.E.G. are included, and the patterns produced were characteristic of either grand mal or petit mal varients. Many of the wave and spike varients had multiple spikes associated with each wave, and some of these spike discharges were seen to occur at alpha frequency with the spike at the crest of, or between, the alpha waves. Fasting blood sugar estimations were done on six patients, and in five a rise occurred above the fasting level. 19 references. 5 figures. 3 tables.—*Author's abstract.*

Dramamine in the Prevention and Treatment of Nausea and Vomiting Following Electroshock Therapy. E. F. KERMAN, Baltimore, Md. Dis. Nerv. System *12*:83-85, March 1951.

Fifty-five patients treated with electroshock who experienced nausea and vomiting following their treatment were given 100 mg. of dramamine by mouth. This was generally administered to these patients, once their predisposition to this complication was determined, one hour before shock therapy. In a few instances the drug was administered to relieve established nausea. Fifty-one patients (93 per cent) experienced complete prevention or relief. Three patients reacted to medication with a diminution in the severity of the nausea. In only 1 case was the drug considered a failure. It is suggested that postshock nausea is caused by vestibular stimulation occurring during the course of electroshock therapy and that the mode of action of dramamine upon it is similar to that which it exerts in motion sickness. 12 references. —*Author's abstract.*

Rehabilitation of the Prefrontal Lobotomy Patient. LEON L. RACKOW, AND DOROTHY L. MC GRIFF, Tuscaloosa, Ala. Occup. Therapy *29*:329-37, Dec. 1950.

The procedure of prefrontal lobotomy relieves emotionally painful tensions and fears and allows re-establishment of more normal and socially acceptable thought patterns. However, in itself it is seldom a complete treatment but it provides an opportunity to recrystallize the organization of the personality so that the full potentialities of the patient may be developed. The work of re-adaptation should be started as soon as possible after operation through an intensive re-education and resocialization program along the lines of vocational, social, recreational, and physical education. It is felt that convalescence in the hospital under a carefully managed re-

habilitation program is far more beneficial than early discharge to an unorganized, indifferent, and sometimes hostile environment. A well rounded, full time program, flexible enough to meet individual needs with persistent urging, direction of attention, and stimulation of interest in individual and group activities is necessary. Pressure must be exerted to the degree of individual tolerance short of eliciting an explosive reaction, and guidance must be firm, with an emphasis on constant occupation and constructive activity. Physical exercise programs are started on the fourth postoperative day for reconditioning activities. Educational therapy is most effective when started early and provides new interests, creates a sense of worth-while accomplishment, and establishes goals for the patients to achieve. Occupational therapy is initiated on the fourth postoperative day and is divided into group activity and individual work, providing an opportunity to develop desirable habit patterns and increasing the patient's confidence in himself and his ability to solve larger problems. It is followed with therapy in the various hospital industries as an opportunity for the postoperative patients to learn new skills and as a test of vocational adjustment and determination of work tolerance. Voluntary workers are very valuable in providing means of resocialization by the contacts with the patients. Habit training must be stressed at all times and retraining in personal hygiene, toilet habits, and care of clothing is stressed at all times. The families of the patients must be carefully prepared and are of major importance for successful postoperative social adjustment. The social service is used to ease the break between hospital and community life by considerable family preparation prior to the time the patient leaves the hospital. A guide, *Home Care Following Lobotomy*, written in the form of a catechism is given to each family and points out actions or traits that may be exhibited by the patient and the methods that the family may use to redirect or change each action. 12 references, 1 table.—*Author's abstract.*

Electroshock Therapy and Multiple Sclerosis. N. SAVITSKY AND W. KARLINER, Bronx, N. Y. New York State J. Med. *51*:788, March 15, 1951.

Two patients diagnosed as multiple sclerosis were treated with electroshock therapy because of coincidental endogenous depressions. No deleterious effect on the multiple sclerosis was observed in their case. The neurologic status remained the same in one patient and a hemiparesis improved during treatment in the other.—*Author's abstract.*

Clinical and Psychological Investigation of Prefrontal Lobotomy in Chronic Schizophrenia. H. B. CARSCALLEN, C. W. BUCK, AND G. E. HOBBS, London, Canada. Arch Neurol. & Psychiat. *65*:206-20, Feb. 1951.

In this article the authors have reported upon certain investigations carried out on 49 lobotomized chronic schizophrenics. No differentiation was attempted along the lines of diagnosis, age or sex. Three investigations are reported:

1. A study of the group trends as reflected by behavioral and symptomatic changes preoperatively and at various postoperative time levels. Behavior, affect, delusions, and hallucinations were studied. It was found that up to the six months period the group as a whole becomes more placid. Affect is grossly blunted. There is

some diminution in the intensity and incidents of delusions and hallucinations, but in the six months postoperative period it is suggestive that a certain portion of the group are reverting toward their preoperative tendencies.

2. Estimation of the value of certain possible prognostic criteria. Data relative to age, length of illness, and previous treatment were studied. (The previous treatment referred to was, specifically, insulin shock and electroshock.) Up to the six months postoperative period it was found that out of these possible criteria the only one that appeared to be of any real value was length of illness. In this regard it was suggested that illnesses of over five years duration reacted less favorably to the operation.

3. Study of group trends in intellectual function. The same time levels were utilized, namely, preoperatively and up to the six month period postoperatively. The results of the Wechsler-Bellevue intelligence test were utilized for this study of intellectual functioning. It was found that there was no suggestion of any detrimental effect on intellectual function of the group as a whole. On the contrary, study of all three portions of the Wechsler-Bellevue suggested an improvement over the preoperative performance. This was most marked in the sphere of performance.

Summarizing the studies made, the authors concluded that:

1. Changes involved mainly diminution in the intensity of symptoms and improvement in behavior. The basic schizophrenic nature of the group did not appear to be greatly altered.

2. Only cautious predictions should be made up to the six months postoperative time. There was a tendency toward exacerbation of symptoms within this period.

3. Length of illness appeared to assume some significance as a possible prognostic criterion. The illness over five years duration reacted less favorably.

4. There was no suggestion that the intellectual functioning of the group was adversely affected. There appeared to be an improvement in this regard, most marked in the sphere of performance. 8 references. 7 charts.—*Author's abstract.*

The Electrocardiogram in Psychiatric Patients (Including a Report of the Electrocardiogram Following Frontal Lobotomy.) J. E. OLTMAN, AND S. FRIEDMAN, with the technical assistance of MISS N. ACKELL, Newtown, Conn. J. Nerv. & Ment. Dis. *113*:127-35. Feb. 1951.

Contrary to a previous report, the authors failed to discover evidence of unusual incidence of electrocardiographic abnormalities in psychiatric subjects. Among 812 psychiatric patients under 65 years of age whose cardiovascular system was clinically and roentgenographically normal, there were approximately 3.0 per cent with some electrocardiographic abnormality. These included: 1.1 per cent with prolonged P-R interval; 0.24 per cent with prolonged Q-R-S interval; 1.4 per cent with abnormality in the direction or amplitude of T waves in lead 1 and 2; and 0.24 per cent with other changes. Except for premature beats there were no cases with significant arrhythmia. Both the total incidence of abnormalities and the various types of aberrations agreed satisfactorily with the results of previous studies of normal individuals.

These observations lead to the conclusion that electrocardiographic findings in psychiatric patients should be subject to the same standards and interpretations as those utilized for nonpsychiatric subjects. There were no significant electrocardiographic changes following frontal lobotomy. 9 references. 2 tables.—*Author's abstract.*

Psychological Changes Following Prefrontal Leucotomy: A Review. SIDNEY CROWN, London, England. J. Ment. Sc. *97*:49-83, Jan. 1951.

The main points which emerged from a review of the clinical studies of prefrontal leucotomy are: (1) approximately 25 per cent of schizophrenics can be expected to make a "social recovery" after leucotomy. (2) Probably the best results are obtained in the affective disorders—involutional melancholia and agitated depression. "Social recovery" or "good recovery" have been reported in from one-half to two-thirds of these cases. (3) Paranoid illnesses are usually considered to respond better to leucotomy than other schizophrenic illnesses but not as well as the affective disorders. (4) Obsessional disorder is said to respond well to leucotomy, but the evidence is inconclusive. (5) Other contexts in which the psychiatric results of leucotomy have been reported as favorable are: in controlling the violence and impulsiveness of selected mental defectives; in reducing chronic psychotic overactivity; in abolishing the periodicity in certain psychoses, especially catatonia; in removing the symptoms of depersonalization. (6) Many workers have stressed that psychiatric diagnosis, as such, is of less importance in selecting cases which will respond well to leucotomy than certain specific indicators in the symptomatology, of which emotional response (presence of apprehension, tension, anxiety, depression, agitation, hypochondriacal ideas, etc.) is considered by many to be the most important criterion of selection. (7) Follow-up studies of patients treated by leucotomy almost invariably report that certain personality changes have followed the operation. These include: cheerfulness, complacency, indifference to the opinions and feelings of others, less shyness and reserve, tactlessness, shallowness in emotional life, no tendency to make new friends, sometimes an absence of old affection, increased self-esteem, lack of self-criticism. Studies using psychologic test technics are reviewed: (1) The main conclusions drawn from a review of the results of cognitive testing before and after prefrontal leucotomy is that there are certain postoperative intellectual changes. Of those tests so far investigated, scores on verbal intelligence tests and the Porteus Maze test show the greatest postoperative deficits. (2) Other findings which appear reliably established are: Quantitative changes on the Rorschach test are small; there are postoperative decreases in neurotic tendency and increases in extraversion; there is improvement in total adjustment as rated by ward behavior charts; there is impairment on the Babcock Tests of "basic efficiency" (perception, speed, learning, motor control, etc.); there is little consistency between investigators as to whether abstraction is affected by prefrontal leucotomy.

It is emphasized, in the general conclusion, that future psychometric studies of the changes following leucotomy should be concerned with the investigation of clearly formulated hypotheses. Investigations should be extended; the cognitive testing by

the inclusion of tests of all the widely recognized group factors and the nonintellectual personality testing by continued attempts to devise tests to measure the more subtle, yet clinically observable, postoperative changes.

Effect of Prefrontal Lobotomy on Temperature Regulation in Schizophrenic Patients. C. W. BUCK, H. B. CARSCALLEN, AND G. E. HOBBS, London, Canada. Arch. Neurol. & Psychiat. 65:197-205, Feb. 1951.

Patients suffering from schizophrenia showed an abnormality of their temperature control, marked by rigidity and irregularity, as shown by the diurnal temperature pattern and response to a cold bath. In this study a group of 40 patients with schizophrenia were compared in this manner before and after the operation of prefrontal lobotomy. There was a decrease in the irregularity of the diurnal cycle with a significant increase in the day-night differential (the mean day temperature minus the mean night temperature, taken at four hour intervals for a four day period). Before operation the mean day-night differential was +0.5 (±0.06) F. and after +0.7 (±0.05). In addition, there was an increase in the compensatory fall after removal from a cold bath from a mean of —0.2 (±0.16) before operation to —0.6 (±0.09) after operation. The change was in the direction of, but still differed from that found in, the nonpsychotic.

A previous study has shown that the abnormality in temperature control in the schizophrenic patients was most marked in those where the psychosis was under five years' duration. Accordingly, the changes with lobotomy were analyzed according to the duration of psychosis. It showed that the alterations noted were most marked in those with duration of psychosis under four years. The earlier cases showed changes in their temperature pattern after operation that made them more like patients in the late stages of the disease. The picture was closer to, but still not identical with, that of the normal subject under the conditions studied. 8 references. 2 charts. 6 tables. —*Author's abstract.*

Contributions to the Study of Electronarcosis (Contribution à l'étude de l'électronarcoses). C. QUARTI, Bergamo, Italy. Presse méd. 59:125-27, Feb. 3, 1951.

The apparatus employed to produce electronarcosis is described. This apparatus controls dosage by regulation of the amperage. The electrodes are placed in the temporo-frontal region, and the amperage is raised rapidly to about 160 milliamperes until there is complete loss of consciousness. In the first phase of the electronarcosis there is general muscular hypertonia with hyperextension of the extremities. As the amperage is gradually lowered, a clonic phase is noted. The apnea, characteristic of the hypertonic phase, is also relieved to a great extent by lowering the amperage. In some cases complete narcosis is not maintained for more than five to seven minutes, but in other cases it is prolonged to ten minutes or more. In completing the treatment the amperage is gradually, not suddenly, reduced to zero. The treatment is usually followed by a state of mental confusion, but without excitement. The patient may sleep for a few minutes to half an hour but usually regains a comparatively

normal state in a short period of time. The day after the treatment the patient may complain of headache, nausea, or general malaise. A total of 12 to 15 treatments is given, usually three a week.

In comparing results with electronarcosis and electroshock, the author has found that patients with depression respond well to both methods of treatment. Patients with schizophrenia respond better to electronarcosis than to electroshock. Patients with involutional melancholia, psychasthenia and paranoid syndromes, who are but rarely benefited, if at all, by electroshock, are definitely improved by electronarcosis. Electronarcosis is to be preferred to electroshock because of its greater simplicity, less disturbing motor manifestations, and better control of apnea. 14 references.

Other Article

Results of Prefrontal Leucotomy. A Preliminary Review of 22 Cases. S. JACOBSON, South African M. J. 25:137-39, March 3, 1951.

neurology

CLINICAL NEUROLOGY

Polycythemia Vera and the Nervous System. D. R. JOHNSON, Cambridge, Minn., AND W. S. CHALGREN, Mankato, Minn. Neurology *1*:53-67, Jan.-Feb. 1951.

Nervous system involvement in polycythemia is a cardinal feature of the disease. Nervous system symptoms are present in at least three fourths of all cases. In a third of all cases neurologic symptoms are the most important complaint. The most common symptoms are nonspecific and include headache, vertigo, fatigue, and weakness. Visual disturbances, paresthesias, and vague aches and pains are frequent. These symptoms are often combined with many other complaints, and a diagnosis of neurosis is easily and often made. A confusional type of psychosis may occasionally develop. Many of these symptoms disappear when the blood values are restored to normal.

Objective neurologic findings are present in over one fourth of patients with nervous system symptoms. They are usually focal in nature, caused by vascular thrombosis. Hemiplegias are most common, but extrapyramidal syndromes may also occur. Two important characteristics of the cerebral lesions are, first, their occurrence in multiple areas of the brain, and second, the occurrence of repeated thromboses followed by more or less complete recovery. In some cases lesions appear to be progressive. These may be mistaken for brain tumor, especially if increased spinal fluid pressure with choked disc is present.

Occasionally, diencephalic lesions are associated with polycythemia. An erythrocyte-stimulating center in this area of the brain is postulated, but further investigation of this problem is required before any conclusions can be drawn.

Paresthesias are common complaints, but actual peripheral neuritis is rare. A case with a generalized peripheral neuritis and polycythemia is presented.

A series of five personal observations, one with autopsy, are cited to illustrate various neurologic complications of polycythemia. 86 references.—*Author's abstract.*

The Post-Traumatic Chiasm Syndrome with Intracranial Pneumatocele (Le Syndrome chiasmatique post-traumatique avec pneumatocèle intra-cranienne). 3. GROS AND R. CAZABAN, Montpellier, France. Presse méd. *59:*398-99, March 28, 1951.

Intracranial pneumatocele is a comparatively rare complication of trauma to the frontal portion of the skull. In the case reported no pneumatocele was demonstrated by x-ray examination at the time of the fracture. Rhinorrhea was noted at that time and persisted until the time of the second examination a month and a half later when the patient noted a definite failure of vision. Examination showed a bitemporal hemianopsia with some diminution of central vision on the left side. The radiogram at that time showed an intracranial pneumatocele. At operation the pneumatocele was opened, but the optic chiasm could not be entirely freed from adhesions (adhesive arachnoiditis). After operation the central vision improved, but the visual fields showed no improvement. The damage to the optic chiasm in this case is attributed to two factors, direct pressure by the pneumatocele and the development of adhesive arachnoiditis in the region of the chiasm. In a review of the literature on post-traumatic bitemporal hemianopsia due to injury of the optic chiasm, the authors found no other case reported in which an intracranial pneumatocele was present. 5 figures.

Postherpetic Trigeminal Neuralgia. O. SUGAR AND P. C. BUCY, Chicago, Ill. Arch. Neurol. & Psychiat. *65:*131-45, Feb. 1951.

The patient, a 67 year old male, had had persisting burning pain in the left eye, cheek and side of nose since the onset of herpes zoster seven months before. Local injection of the nerve to the cheek with alcohol, x-ray therapy to the Gasserian ganglion, section of the sensory root of the fifth cranial nerve, cocainization of the sphenopalatine ganglion, stellate block, and inhalations of trichlorethylene failed to relieve the pain. Extirpation of the contralateral face sensory cortex failed to help. Extirpation of what was believed to be the ipsilateral sensory cortex also gave no relief. Histologic study later showed this to have been posterior to the sensory area. Electric shock treatment failed to give good relief, which was obtained only at the sacrifice of personality traits with prefrontal lobotomy. Findings following the operations indicated that the projection area for perception of taste is located at the foot of the postcentral gyrus.

The persistence of pain after section of afferent pathways to the thalamus is believed to be due to self-perpetuating thalamocortical circuits, depending on lowered thresholds at synapses due to hypoxia, attendant on cerebral arteriosclerosis.

There is, as yet, no definitive surgical or medical treatment for the distressing pain of postherpetic trigeminal neuralgia. Lobotomy brings relief, but at the expense of producing undesirable personality and behavior changes. 55 references. 5 figures.—*Author's abstract.*

Sixth-Nerve Palsy after Lumbar Puncture and Spinal Analgesia. R. BRYCE-SMITH, AND R. R. MACINTOSH, Oxford, England. Brit. M. J. No. *4701*:275-76, Feb. 10, 1951.

Palsy of the sixth cranial nerve following spinal analgesia is not uncommon and the incidence is probably higher than published figures suggest. The sequence of events is remarkably constant; paralysis preceded by headache, dizziness, nausea, stiff neck, photophobia and diplopia occur 3-21 days after the spinal analgesia. The suggested causes of the lesion are discussed.

Two cases are reported, 1 occurring after a spinal anesthetic, the other after lumbar puncture. In both a rapid loss of cerebrospinal fluid was followed by a palsy on the opposite side to which the patient was lying at the time of puncture.

It is suggested that the brain sags, so stretching the upper nerve over the apex of the petrous temporal bone. The lesion thus follows a reduced, rather than a raised intracranial pressure. A bilateral palsy may be produced in a similar manner by changing the patient's position after lumbar puncture. 16 references. 1 figure. —*Author's abstract.*

Hemiplegia in the Course of Mitral Cardiac Disease (*Les hémiplegies an cours des cardiopathies mitrales*). J. LENEGRE, L. TATIBOUET AND P. PARIS, Bull. et mem. Soc. méd. d. hop. de Paris. *67*:151-61, Feb. 9, 1951.

In a study of 100 cases of mitral heart disease in which hemiplegia occurred, it was found that the cardiac factors most frequently associated with the onset of hemiplegia were cardiac decompensation (88 per cent of cases), complete arrhythmia (81.5 per cent of cases), and enlargement of the left auricle (86 per cent of cases). Fever was present in 51 per cent. A study of the relation of digitalis therapy to the onset of hemiplegia showed that in 91 per cent of the cases there was no definite relation between the amount of digitalization, or if digitalization was a factor, it was only one of the factors in the causation of the hemiplegia. Of the 83 patients in this series, treated in the hospital, 29 (35 per cent) died within a few days after the onset of hemiplegia. Of the 54 patients surviving, 36 showed no neurologic sequelae, but 18 showed more or less severe sequelae. The autopsy findings in the 29 patients who died in the hospital show that in some cases the cause of hemiplegia is evident—embolus of a cerebral artery resulting from a thrombus in the left auricle. In other cases there may be an embolus of a cerebral artery without thrombosis in the left auricle, and in a few cases neither embolus nor thrombosis is present. 21 references. 1 table. 1 figure.

Migraine (*La migraine*). ALBERT SALMON, Florence, Italy. Presse méd. *59*:194-96, Feb. 14, 1951.

In reference to the mechanism of migraine, the writer observes that there are some points which have been made intelligible and others which still remain unexplained.

Migraine, according to Dubois-Reymond's suggestion, is due to a constriction, a spasm of the cerebral vessels, promoted by an irritation of the sympathetic system. This is relieved by the use of vasodilator drugs or by inhibiting the sympathetic sys-

tem or by removing the cervical sympathetic.

The relationship between the neurovegatative system with the endocrine system accounts for the frequent association of migraine with the thyroid, parathyroid, adrenal, pituitary syndromes, particularly in women.

Yet the vasomotor and sympathetic theory does not explain the mechanism of production of cerebral acute edema and cephalorachidian hypersecretion. A number of facts support the suggestion that the pains of spasmodic origin are not directly the consequence of ischemia or spasm but relevant to the venous hyperemia following the angiospasm.

Asphyctic venous blood possesses toxic, irritant, phlogistic properties acting on the nervous fibers and the veins and inducing very painful neuritis or phlebitis.

The pain of migraine is, therefore, augmented by the acute cerebral edema and the cephalorachidian hypersecretion which are observed in those affected with migraine and are probably due to the venous cerebral hyperemia.

ANATOMY AND PHYSIOLOGY OF THE NERVOUS SYSTEM

The Influence of the Thyroid on Cerebral Metabolism. JOSEPH F. FAZEKAS, Washington, D. C. Endocrinology *48:*169-74, Feb. 1951.

The metabolism of normal, hyperthyroid, and hypothyroid adult and developing rat cortex was studied in vitro. Cortical oxygen utilization was not influenced by hypothyroidism in developing and adult rats, nor did hyperthyroidism appear to influence the metabolism of adult rat cortex. An acceleration toward the normal adult metabolic level was observed in hyperthyroid developing young rats. It is possible that other parts of the brain show detectable alterations in metabolism in abnormal thyroid states and that there may be quantitatively small changes in functional metabolic activity of the cortex not demonstrable by present experimental methods, which are capable of measuring only vegetative metabolism of brain tissue. This portion of the cerebral metabolic activity normally proceeds at the maximum limit of its capacity. The latter concept may help to explain the fact that there has been no conclusive demonstration of acceleration of measurable cerebral oxygen consumption above the normal in vivo level. 10 references. 1 figure.—*Author's abstract.*

Congenital Malformations of the Central Nervous System. III. R. G. RECORD, AND T. MC KEOWN. Birmingham, England. Brit. J. Social Med. *4:*217-20, Oct. 1950.

This communication deals with the risk of recurrence in a sibship of malformations of the central nervous system. It is based on 727 fraternities, each containing at least one malformed individual born in Birmingham, England, in the period 1940-47. By the end of 1947 these propositi had had 470 subsequent sibs of which 13 showed central nervous malformations— an incidence of 2.77 per cent. Taking account of birth rank and secular trend, an incidence of 0.45 per cent would have been expected among these sibs if they had shown no special predisposition to mal-

formation. It is concluded that, for infants born after a central nervous malformation, the risk of malformation is six times greater than usual. 2 references. 5 tables.—*Author's abstract.*

The Derivatives of Thalamus Dorsalis and Epithalamus in the Human Brain: Their Relation to Cortical and Other Centers. H. KUHLENBECK, Philadelphia, Pa. Mil. Surgeon. *108*:205-56, March 1951.

Topography, structure, and fiber connections of the nuclei comprising the derivatives of epithalamus and thalamus dorsalis in the human brain are discussed on the basis of comparative and ontogenetic evidence.

The human epithalamus consists of stria medullaris thalami and habenular nuclei. Epiphysis and choroid plexus of third ventricle are roof plate derivatives.

On the basis of topographic and architectural criteria, seven groups of dorsal thalamic nuclei are distinguished: (1) anterior group, (2) medial group, (3) nuclei of the midline, (4) intralaminar nuclei, (5) ventrolateral group, (6) posterior group, and (7) pretectal group.

From a predominantly functional viewpoint, the following five thalamic nuclear groups can be recognized: (1) cortical relay nuclei of main sensory systems exclusive of olfactory system, (2) nuclei of cortical feedback systems or direct cortical modulators, (3) intralaminar and midline nuclei or indirect cortical modulators, (4) nuclei with probable subcortical connections to pallidum and striatum, and (5) pretectal nuclei.

Functional significance of the various groups and their constituent nuclei as well as clinical implications are briefly reviewed and discussed. 111 references. 21 figures. —*Author's abstract.*

CEREBROSPINAL FLUID

The Cerebrospinal Fluid Pressure and its Etiological Relationship with Certain Regions Affecting the Central Nervous System. JOHN E. A. O'CONNELL. Univ. Michigan M. Bull. *17*:115-19, April 1951.

It is frequently stated that the cerebrospinal fluid pressure in man in the horizontal position is a steady one and lies between 80 and 100 mm. of water. This is not a particularly informative statement since, owing to the venting of the cerebrospinal fluid spaces in the erect position, intracranial pressure is subatmospheric and the pressure in the lumbar theca is more than doubled. It is suggested that hydrostatic and vascular factors play an important part in maintaining the normal pressure of the cerebrospinal fluid and that the latter may also be of importance in the circulation of this fluid. Further, a consideration of the forces which maintain cerebrospinal fluid pressure and of the variations which occur in it as well as in the anatomy of the spaces which contain this fluid, suggests that the part which this pressure may play in the pathogenesis of lesions of the central nervous system has received insufficient attention. It has thus been suggested that the normal pressure of the cerebrospinal fluid, on both negative and positive sides, may be sufficient to

give rise to certain lesions within the cranium and spinal canal. Finally, evidence of the close relationship between cerebrospinal fluid and systemic venous pressure in man has been suggested. This relationship is so intimate that, in the absence of any intracranial disease, it appears that a rise in venous pressure may give rise not only to gross signs of intracranial hypertension but also to focal neurological disturbance.

The Correlation Between the State of the Cerebrospinal Fluid and the Clinical Picture in Disseminated Sclerosis. R. MULLER, Stockholm, Sweden. Acta Med. Scandinav. *139:*153-63, 1951.

A study is made of the cell count and the mastic reaction of the cerebrospinal fluid of 360 patients suffering from disseminated sclerosis.

It is possible to demonstrate a correlation between the cell count and the occurrence of fresh clinical bouts, but not between the cell count and the degree of severity or duration of the disease.

A positive correlation is found between the results of the mastic test on different occasions. In the majority of patients, the mastic reaction remained unchanged in two successive examinations, the average interval between them being three and one-quarter years.

Precipitation in the mastic test is found to be independent of changes in the clinical picture, the degree of severity, and duration of the disease.

No definite correlation can be shown between the state of the cerebrospinal fluid and the course of the disease.

Studies on the Iron Content of Cerebrospinal Fluid in Different Psychotic Conditions. H. E. LEHMANN, AND V. A. KRAL, Montreal, Canada. Arch. Neurol. & Psychiat. *65:*326-36, March 1951.

The iron content of 103 spinal fluids of 98 patients committed to a mental hospital has been examined. The case material was divided (before the iron content of the CSF was known) into five groups:

1. Nonpsychotic, comprising 18 patients without psychosis committed because of conduct disorders and social difficulties.
2. Organics, 34 cases of psychosis with organic brain disease (dementia paralytica, psychosis with Parkinsonism, cerebral arteriosclerosis, dementia senilis, etc.)
3. Schizophrenics, nondeteriorated, 20 cases.
4. Schizophrenics, deteriorated, 13 cases.
5. Miscellaneous, 13 cases comprising manic-depressive psychosis, involutional melancholia, reactive depression, etc.

The total iron was determined in the Department of Biochemistry at McGill University (Dr. Denstedt) by means of a colorimetric reaction with O-phenantroline. No relation could be found between the iron content of the CSF and the spinal fluid findings as determined with the routine laboratory methods.

The range of iron was found to lie between 0.005 and 0.360 mg. per cent, the mean was 0.048 mg. per cent, the standard deviation 0.040. Omitting four spinal

fluids with an iron content higher than 0.100 mg. per cent reduced the standard deviation to less than half of its former value. The following were the general results after omission of these four cases: In 99 CSF obtained from 99 patients the range of iron content was 0.005-0.093 mg. per cent, the mean 0.042 mg. per cent, the standard deviation 0.019. The results of the individual groups read as follows:

	Range	Mean	Standard deviation
Nonpsychotics	0.005-0.093 mg.%	0.038 mg.%	0.019
Organics	0.017-0.090 mg.%	0.047 mg.%	0.019
Schizophrenics (non-deteriorated)	0.013-0.054 mg.%	0.032 mg.%	0.011
Schizophrenics (deteriorated)	0.017-0.075 mg.%	0.045 mg%	0.018
Miscellaneous	0.011-0.090 mg.%	0.047 mg.%	0.024

The following differences between the means were found statistically significant: schizophrenics deteriorated, schizophrenics nondeteriorated, and organics. Statistically the deteriorated schizophrenic group was very similar to the organic group, whereas the nondeteriorated schizophrenics behaved like the nonorganic cases as far as the CSF iron was concerned.

Hypothetically, it is assumed that a low iron content of the CSF is indicative of increased brain metabolism and that high iron values of the CSF may reflect reduced cellular activity of the brain tissue. 25 references. 2 tables.—*Author's abstract.*

CONVULSIVE DISORDERS

Social Aspect of Epilepsy. E. REVITCH, Lyons, N. J. Jersey M. Soc. New Jersey *48*:100-102, March 1951.

Treatment of the epileptic is made up of two components: medical and psychologic social care. Many physicians limit themselves in treatment of an epileptic to prescribing anticonvulsive medication. This, however, is inadequate as epilepsy presents a serious emotional problem to the patient. Necessity of vocational reorientation in some cases is frequently connected with lowering of earning capacity of the individual. Seizures in a child will cause either rejection on the part of the parents or overprotective attitudes which will interfere with the child's development. The statistical studies of social attitudes toward epilepsy show a great deal of misunderstanding which results in real ostracism of patients with convulsive seizures. Because of negative social attitudes, epileptics are mercilessly discharged from jobs; many colleges refuse admission to epileptic students; some primary schools do not keep epileptic children. These negative public attitudes are not justified for 75 per cent of epileptics can lead a normal life and make a good social and work adjustment. Therefore, in addition to drug therapy and to guidance and emotional support of the epileptic patient, it is imperative that social attitudes be changed. This can be accomplished by means of campaigns through press, radio, public lectures, and orientation of medical practitioners by neurophsychiatrists and psychiatric social workers. 7 references.—*Author's abstract.*

Anticonvulsive Properties of Desoxycorticosterone. R. E. AIRD AND G. S. GORDON, San Francisco, Calif. J. A. M. A. *145*:715-19, March 10, 1951.

In studies concerned with the basic neurophysiologic and biochemical mechanism influencing convulsive reactivity, the anticonvulsive properties of the steroid hormone, desoxycorticosterone acetate, have been of interest to us. Although it is obvious that this agent, even if found to be of some value in the treatment of convulsive disorders, would not constitute a practical addition to present methods of anticonvulsive therapy because of its cost, we have conducted a small clinical study in order to evaluate better the present meager and conflicting data on this agent.

Desoxycorticosterone acetate was administered as sublingual tablets, in doses varying from 4 to 15 mg. a day, to 10 patients whose convulsive seizures were inadequately controlled on standard anti-convulsive regimens. Because these patients had proved partially refractory to previous anticonvulsive therapy, desoxycorticosterone acetate was added to those combinations of other agents that had been found to be helpful. The number of seizures in each patient was recorded for several months before addition of the steroid, and only those patients were selected who had a fairly constant base line.

When desoxycorticosterone acetate was added to the regimen, the attacks became more infrequent in 7 patients. The medication appeared to benefit the petit mal spells in 6 of these patients and the grand mal seizures in 2 of them. In 2 instances seizures were entirely abolished. Substitition of placebo tablets in the group that appeared to be benefited by desoxycorticosterone acetate resulted in a dramatic resumption or increase in the number of seizures in 2 patients and approximated status epilepticus in 1 patient. Reinstitution of the hormonal therapy in these cases again resulted in an amelioration of the convulsive tendency. During the period of treatment with desoxycorticosterone acetate there was no significant increase in blood pressure or weight or any evidence of edema.

Administration of the water-soluble conjugate, desoxycorticosterone glucoside, tended to reduce the incidence of abnormal waves in the electroencephalogram.

In conclusion, therefore, these data suggest that desoxycorticosterone acetate, at least when used as an adjuvant to other anticonvulsive therapy, possesses anticonvulsive properties in petit mal and possibly to some extent in grand mal. 14 references. 4 figures.—*Author's abstract.*

Pancytopenia due to Tridione (Pancytopenie durch Tridion). E. KLAUS, St. Gallen, Germany, Acta Haemat. *5*:74-86, Feb. 1951.

The introduction of tridion into the treatment of petit mal attacks of genuine epilepsy represents an important progress. Unfortunately, severe lesions of the kidney (nephrotic syndrome), of the skin (exfoliative dermatitis), and of the bone marrow by tridion treatment were observed during the last years. The author describes a case of his own observation in which tridion treatment of a child of 10 led to a fatal agranulocytosis, thrombopenia, and anemia after twelve months. Similar cases of pancytopenia after tridion treatment are described in the literature;

7 of 10 cases ended fatally. The regular control of the leucocytes, the reticulocytes, and the thrombocytes and its importance for therapy and prophylaxis is emphasized.

DEGENERATIVE DISEASES OF THE NERVOUS SYSTEM

On Homonymous Hemianopsia in Multiple Sclerosis. NATHAN SAVITSKY AND LEO RANGELL, New York, N. Y. J. Nerv. & Ment. Dis. *111*:225-31, March 1950.

No cases of homonymous hemianopsia were found in 50 autopsied cases and 450 clinically observed cases of multiple sclerosis, as well as in 217 verified cases from the literature. Lesions were found repeatedly in the optic tracts and radiations in patients without homonymous field defects. Homonymous hemianopsia is therefore rare in multiple sclerosis and its presence is therefore against a diagnosis of this affection. 117 references.—*Author's abstract.*

The Nailbed Capillaries in Disseminated Sclerosis. J. H. D. MILLAR AND D. G. F. HARRIMAN, Belfast, Ireland. J. Neurol., Neurosurg. & Psychiat. *13*:312-13, Nov. 1950.

The nailbed capillaries in 31 cases of disseminated sclerosis and 34 normal controls were studied with a Zeiss skin and capillary microscope. Enlarged photographs were made and the two series were compared. There was a marked variation in the pattern and shape of the capillaries even in the same subject. No significant difference could be seen in the size and shape of the capillary loops in the two series. These results did not support the findings in the literature. 8 references. 1 figure. 1 table.—*Author's abstract.*

Myasthenia Gravis Associated with Hyperthyroidism: Report of a Case with Thymectomy. N. TAYLOR AND A. LARGE, Detroit, Mich. Am. J. M. Sc. *221*:293-96. March 1951.

A case of the infrequent association of diffuse goiter with hyperthyroidism and myasthenia gravis is reported. Sustained remission of the hyperthyroidism was induced by propylthiouracil. The myasthenia was severe enough to resist control with oral prostigmine 375 mg. daily, and response was inadequate on 32 mg. of intramuscular prostigmine daily. Resection of a thymus in which no tumor was found was followed by marked improvement of the myasthenia gravis so that with small (45 mg. daily) oral doses of prostigmine the patient was rehabilitated. 11 references. 2 figures.—*Author's abstract.*

Digestive and Biliary Manifestations in Muscular Dystrophy (Les Manifestations Digestives et Biliaires des myopathies). ETIENNE FASSIO, Montpellier, France. Presse med. *59*:191-93, Feb. 14, 1951.

In progressive muscular atrophy or muscular dystrophy secondary to congenital or acquired changes in the hypothalamic-endocrinic system there are also such changes

in the visceral musculature as to produce various disorders. Whereas cardiac manifestations have been studied by some authors, it seems that attention was not drawn to the digestive and biliary manifestations.

The writer reports 8 cases respectively related to different forms of congenital or acquired muscular dystrophy. From the whole of his observations, he concludes as follows:

The abdominal aspect in these patients shows a predominancy of the development of a digestive and biliary atony, productive of various disorders either of the acute type (spasmodic attacks, ileus paralyticus) or the subacute and chronic type (hyposthenic dyspepsia, intestinal, and hepato-biliary manifestations).

The writer points out that, in the absence of anatomic findings, it is possible from the therapeutic results to assign the origin of these disorders to an alteration not only of the smooth musculature but also of the nervous conduction, which is promoted and kept up by an endocrinic dysfunction in the pituitary-hypothalamic system.

The digestive disturbances may benefit by a pathogenic therapic, muscular (glycocolle), nervous (vagomimetic and anticholinesterasic), hormono-vitaminic (pituitary and thyroid extracts, vitamin B_1 and E).

Myasthenia Gravis of the Newborn. AUBREY K. GEDDES AND HONOR M. KIDD. Canad. M. A. J. *64*:152-56, Feb. 1951.

Myasthenia gravis has been considered rare below the age of 10 years, and until recently its occurrence in infants has passed unrecognized.

Case histories are presented of (1) a female with myasthenia gravis who had her thymus removed and who subsequently became pregnant; (2) her infant who had severe symptoms of myasthenia at birth (extreme flaccidity most marked about neck and face, mask-like facies, absent sucking and gag reflexes, cyanotic attacks induced by the quantities of nasopharyngeal mucus), was kept alive with prostigmine, intravenous and tube feeding and very careful nursing for 36 days and became completely cured, eventually walking at 10 months; (3) two additional myasthenic infants born of a myasthenic mother.

A review of the literature has revealed 9 cases of myasthenia gravis occurring at birth or in the neonatal period. The cases fall into 2 groups.

Cases 1 to 3 are children born to mothers showing no evidence of myasthenia gravis. All these infants had persistent symptoms; 2 were maintained on prostigmine; the third was incapacitated so little that she preferred to be untreated. Ptosis of the eyelids was present in all; a tendency to progression of signs and symptoms was slight or lacking; there is evidence in some that fetal activity was slight. These are true congenital myasthenia.

The 6 infants of the second group show important differences. They were all born to mothers suffering from myasthenia gravis during their pregnancies. These infants were either so severely affected that they died within a few days of birth, or they were maintained for varying periods of time by careful nursing or prostig-

mine and then became apparently cured. The condition of these infants cannot be attributed to maternal myasthenia, as myasthenic mothers usually produce normal children. The possibility that they are true congenital myasthenia gravis with prolonged remissions is highly unlikely, since Wilson's case had been followed for two years and remained well. These cases, following the lead of Levin, we have labeled *myasthenia neonatorum* or *myasthenia of the newborn.*

The pathogenesis of myasthenia gravis is unknown. Several concepts have been advanced from time to time: (1) A decrease in acetylcholine production or increase in cholinesterase activity, or some imbalance between these two substances, affects neuromuscular transmission. The work of Wilson and Stoner seems to disprove this. (2) A hypothetical curare-like substance, which some believe to be elaborated in the thymus gland, is thought to inhibit the action of acetylcholine or to elevate the threshold of the motor end plates. Wilson and Stoner produce evidence that makes this theory attractive. (3) The disease has been ascribed to a defect in potassium metabolism. (4) Endocrine factors have been implicated.

In transient myasthenia syndrome of the newborn (6 cases from the literature and 3 cases of our own) additional factors must be considered. Does placental transmission of some curare-like substance cause transient myasthenia in the infant? In the case here reported, such a hypothetical substance produced symptoms for one month before it was all destroyed or excreted. Is the development of the infant's neuromuscular biochemical mechanisms suppressed by the large doses of prostigmine taken by the mother in the antenatal period? No, because most myasthenic mothers produce normal children. Does excision of the thymus gland remove some factor which (1) would have prevented the exacerbation of myasthenia in the mother during pregnancy and (2) would have protected the infant in utero? But infants similarly affected have been born to myasthenic mothers with intact thymus, and thymectomized myasthenics have produced normal children.

Is neonatal transient myasthenia due to exposure in utero of an infant with latent myasthenia to a placentally transmitted curare-like substance possessing properties which result in intoxication of the fetus? This concept, very well presented by Levin postulates a predisposing sensitivity in the fetus to substances with curare-like properties as well as actual exposure to such materials. This will explain why only a few children of myasthenic mothers are affected but makes it difficult to explain Wilson's case who was severely affected, yet who had a normal uniovular twin brother.

DISEASES AND INJURIES OF THE SPINAL CORD AND PERIPHERAL NERVES

Spinal Cord Tumors with Minimal Neurologic Findings. F. P. MOERSCH, W. M. CRAIG, AND L. A. CHRISTOFERSON, Rochester, Minn. Neurology *1*:39-47, Jan.-Feb. 1951.

Since the time of Horsley and Gowers many advances have been made to aid in earlier diagnosis and more exact localization of spinal cord tumors. These advances include perfections in roentgenologic technic, the use of lumbar puncture, and finally myelography.

The authors stress the importance of bearing in mind that cord tumors may occur in any decade of life. Pain is by far the most outstanding complaint. Unremitting pain of unknown origin should lead one to suspect the possibility of a spinal cord tumor.

Sometimes it is possible to make the diagnosis and to localize an intraspinal cord tumor before definite neurologic changes develop. It is important to recognize such spinal cord lesions before serious irreparable damage to the spinal cord occurs.

In this study, which included a review of 150 verified spinal cord tumors, 32 exhibited no definite or localizing neurologic signs at the time of operation. In 5 cases the neurologic examination was negative at the time of the original study, but the patients developed definite signs before operation was performed.

As aids in diagnosis, pain appeared as the only constant symptom in this group of patients. Percussion tenderness over the spinal column, "stiff back," altered gait, and subjective weakness of one or both legs were added aids in diagnosis. The significance of pain occurring at night or becoming exacerbated while the patient is recumbent should not be overlooked, and the production or increase of pain by acts of coughing, sneezing, or straining is also of importance.

It is interesting that roentgenologic examination of the spinal column indicated the presence of tumor in 10 of the 36 cases. The spinal fluid protein was elevated in 26 of the 29 instances in which it was studied. The significance of spinal fluid examination as demonstrated by the authors in a series of cases needs no special comment except to point out the normal spinal fluid protein does not necessarily rule out the presence of a spinal cord tumor. Myelography was of aid in localization of the spinal cord tumor in approximately 90 per cent of the patients.

The high incidence of complete removal of the tumors in this series illustrates the value of early diagnosis and treatment before the advent of serious, irreversible neurologic damage. 8 references. 4 tables.—*Author's abstract.*

Pain Below the Level of Injury of the Spinal Cord. L. J. POLLACK, M. BROWN, B. BOSHES, I. FINKELMAN, H. CHOR, A. J. ARIEFF AND J. R. FINKLE, Chicago, Ill. Arch. Neurol. & Psychiat. 65:319-22, March 1951.

To explain the "spontaneous" diffuse burning and other types of pain which are felt distal to the level of spinal cord injury, many theories have been proposed. Some have evoked the participation of the sympathetic nervous system. We propose that the site of origin of this pain is the distal end of the proximal segment of the injured spinal cord for the following reasons:

The pain is felt in phantom amputated limbs. It does not disappear during spinal anesthesia below the level of the injury. It does disappear on spinal anesthesia above the level of the lesion.

There have been a number of reports upon the apperception of pain below the level of the spinal cord injury resulting from injury or disease.

A number of theories have been proposed to explain this. In some instances, participation of the sympathetic nervous system has been evoked.

We enumerate large numbers of diseases, injuries, and operations without anesthesia in which no pain was felt when the spinal cord was severely injured.

From these observations the conclusion is reached that no pain results from distal stimuli of injury or disease, and no other pathway for pain than the spinal sensory one need be postulated.—*Author's abstract.*

Metabolic Studies in Patients with Traumatic Spinal Cord Injuries with Special Reference to Glucose Tolerance and Liver Function. ALBERT W. COOK, St. Albans, N. Y., New York State J. Med. *51*:383-86, Feb. 1951.

At the close of World War II it was estimated that approximately 2,000 patients with spinal cord injuries were in the Army, Navy, and Veterans Administration hospitals. Since this time, the physicians who have cared for these individuals have been confronted with many new clinical entities. There have been reports on such phases of these problems as abdominal emergencies, general rehabilitation, control of urination, decubitus ulcers, urologic aspects, spasticity, thrombo-embolic disease, and fertility. Little attention, however, has been directed to a critical analysis of the metabolic changes associated with this state.

The results of oral and intravenous glucose tolerance, liver function, and Congo red tests are reported. The significant abnormalities noted were impaired liver function, a high type of glucose tolerance curve in 3 patients, and a flat type of oral tolerance curve in the remaining men. The current opinions regarding the normal gastrointestinal absorption of glucose are outlined. Faulty motility of the upper gastrointestinal tract is suggested as the basic factor underlying the inadequate absorption of glucose in these patients.

It is concluded that inefficient absorption of foodstuffs such as dextrose may have a direct relation to the severe nutritional problems in patients with a traumatic spinal cord dysfunction. In addition, the finding of impaired liver function in some of these men and possibly a latent diabetes mellitus in one instance emphasizes the necessity of evaluating this type of patient from standpoints other than just that of decubitus ulcers, urologic complications, and varied neurologic problems. 32 references, 2 figures, 3 tables.—*Author's abstract.*

Protrusion of Cervical Intervertebral Disks with Lesion of the Spinal Cord. R. MULLER, Stockholm, Sweden. Acta Med. Scandinav. *139*:85-98, 1951.

Thirteen cases of cervical intervertebral disk protrusion with compression of the spinal cord, 11 men and 2 women, have been studied. Only 2 patients were aware of any trauma. Five patients, before the appearance of symptoms of medullary lesions, had at some period had signs of cervical rhizopathy, in 2 cases the interval being about 20 years. The actual symptoms had, on admission, an average duration of three years. The clinical picture was extremely variable, and easily confused with that of tumors and different degenerative diseases of the spinal cord. In all cases except 1 there was bilateral damage to the spinal cord. Segmental symptoms consisting of root compression were observed in 7 cases.

The cerobrospinal fluid examination gave negative results in 9 cases. In no case was there any marked change. The spinal fluid pressure was studied in 11 cases with combined cisternal and lumbar puncture, and in 2 cases with only lumbar puncture. In 8 cases there was no evidence of subarachnoid block. In 3 cases there was partial block, and in 2 cases respiratory block.

Plain roentgenograms of the cervical spine showed in 8 cases an extensive, and in 4 cases a more limited, spondylosis deformans. Only in 1 case was the roentgenogram normal. No correlation between the duration of the disease and the degree of the spinal changes could be established. In several cases there was certainly an extreme spondylosis deformans even before signs of spinal cord injury appeared.

Myelography was carried out by the inflation of air into the cisterna magna. In all cases the result was positive, which implies that the subarachnoid space was narrowed and distorted by an anterior protrusion which reached the spinal cord. There was no obstruction to the passage of air into the thoracic subarachnoid space. Only in 3 cases was the protrusion limited to one intervertebral disk. In the remaining cases it was more extensive.

Twelve patients were operated upon. The results are not very satisfactory, since in the majority of cases there was already irreversible injury of the spinal cord at the time of the operation, as well as marked changes in the spine of the spondylosis deformans type, which have not permitted a radical intervention.

Protrusion of Thoracic Intervertebral Disks with Compression of the Spinal Cord. R. MULLER, Stockholm, Sweden. Acta Med. Scandinav. *139*:99-104, 1951.

Four cases of thoracic disk protrusion with compression of the spinal cord are described. All patients were middle-aged or elderly men. In no case was there a history of trauma. Three patients had spinal root pain. In cases 1 and 3 the clinical picture corresponded respectively to a severe, and an incomplete, transverse lesion, in both cases with a superficial sensory disturbance of the dissociated type. In case 3 the course was remittent. At a certain stage a Brown-Séquard syndrome developed which later subsided. In case 4 there was only a spastic paresis in the left leg. Plain roentgenogram showed in 2 cases clarification within the damaged disk. In all cases myelography was carried out with positive results. The patients have been operated upon, but the results are unsatisfactory.

ELECTROENCEPHALOGRAPHY

Spontaneous Electrical Activity of the Spinal Cord. J. TEN CATE, Amsterdam, Holland. Electroenceph. & Clin. Neurolphysiol. *2*:445-51, Nov. 1950.

During the last five years I have made, with my co-workers G. P. M. Horsten, L. J. Koopman and W. G. Walter, a special study of the spontaneous electrical activity of the spinal cord and of the various factors by which this activity is influenced.

The isolated spinal cord of frogs and cats show spontaneous electrical activity which can be registered without difficulty. In the electrochordogram it is possible to distinguish slow and fast waves. A single isolated segment of the frog's spinal cord also shows spontaneous electrical activity.

The spontaneous electrical activity is maintained at a relatively high level by stimuli which are transmitted from the skin and muscles to the spinal cord. After section of all the spinal nerves, peeling off of the skin, and elimination of proprioceptive stimuli by injection of curare, the spontaneous electrical activity diminishes considerably.

The spontaneous electrical activity of the spinal cord is also influenced by the brain. Both the nuclei of the brain stem and the motor cortex of the cerebral hemispheres play an important part in this respect.—*Author's abstract.*

HEAD INJURIES See Contents for Related Articles

INFECTIOUS AND TOXIC DISEASES OF THE NERVOUS SYSTEM

Study of 62 Cases of Cerebro-Meningeal Lesions Followed Up During Early Childhood (Etude de 62 cas de lésions cérebro-meningées suivies au cours de la première enfance). J. ROUDINESCO, GUY TARDIEU, MARC BOESWILLWALD, with an introduction by L. RIBADEAU-DUMAS, Paris, France. Arch. franc. de pediat. *8*:136-54, Nov. 2, 1951.

Of 62 infants who showed symptoms of cerebromeningeal lesions due to birth trauma, 54 have been followed up. Four of the children have died from sequelae of the severe encephalopathy; 50 have survived and have been examined, 25 of them twice at a six months' interval. Of these, 32, or 60 per cent, show no neurologic sequels; 12 show slight sequels, which will probably show improvement and may in some cases be entirely cured. These children were treated in the neonatal period by repeated lumbar puncture and in some cases by ventricular puncture with lavage. In most of these cases the delivery was complicated, but neither the use of forceps, prematurity, abnormal presentation nor rapid delivery was invariably associated with serious sequels. The symptoms shown by the infant in the neonatal period were of greater significance in determining the outcome. The failure of the infant to cry at birth when relieved by treatment for respiratory obstruction was not followed by sequelae in 6 out of 7 cases; but in 6 cases in which prolonged resuscitation procedures were necessary, there was one death and the surviving 5 children all show sequelae. In 5 cases of repeated vomiting of meningeal origin, there was 1 death and persisting neurologic symptoms in all the surviving children. In 11 cases in which there was cyanosis, there were 3 deaths and persisting neurologic symptoms in 4 of the survivors. Muscular hypotonia and hypertension of the fontanel also indicate an unfavorable prognosis. A study of the cerebrospinal fluid at the time of the first lumbar puncture shows that the presence of blood in the fluid is an unfavorable sign. In 5 cases with bloody spinal fluid there was 1 death, and only 1 of the surviving children is normal. In 19 cases in which the cerebrospinal fluid showed increased pressure and

was xanthochromatic, there were 3 deaths, 10 normal children, 3 with moderate mental deficiency, and 1 seriously deficient. In 10 cases with the spinal fluid under increased pressure but clear, 6 of the children are normal, 2 have hemiparesis, 1 shows a severe mental deficiency, and 1 is an idiot. In 20 cases in which the spinal fluid was xanthochromatic but not under increased pressure, 16 children are normal, 2 show a moderate degree of mental deficiency, and 2 are idiots.

In cases in which the cerebral symptoms of birth injury are relatively mild, lumbar puncture is the only treatment indicated. In cases with more severe symptoms that indicate an unfavorable prognosis, as noted above, other methods of treatment should be considered. The authors' experience with ventricular puncture and lavage in a few of the cases in this series shows that this procedure reduces the incidence of sequelae, and they believe it should be more frequently used in the more severe cases. If there are signs of unilateral involvement of the nervous system, the possibility of a subdural hematoma should be considered.

Cerebral Schistosomiasis Producing Epilepsy in a Veteran of the Pacific. B. W. LICHTENSTEIN, Chicago, Ill., AND A. SIMON, Alton, Ill. J. Neuropath. & Clin. Neurol. *1*:81-87, Jan. 1951.

Although human infestation with blood flukes (Schistosomatoidea) is common in the Orient, the Near East, and parts of Africa and South America, its occurrence in the United States was practically unknown prior to World War II. Since large concentrations of American troops occurred in the Philippines, it is only natural that some individuals would become infected with the parasites and develop late manifestations of the disease after coming home. Such was the case in the 31 year old colored male admitted to the Alton State Hospital on October 14, 1949, because of repeated epileptiform seizures which resulted in his death 13 days later. He was perfectly well prior to entering the service in January 1942, and there was no personal or family history of epilepsy. From May 1942 to July 1945, he served in Australia, New Guinea, and on Leyte and Luzon in the Philippines. On or about July 4, 1946, after returning to the States, he began to suffer from generalized convulsive seizures which continued at irregular intervals despite anticonvulsant medication until the time of his death. Detailed medical study in a Veterans Administration Hospital resulted in a clinical impression of idiopathic epilepsy. On the day before his final admission to a hospital, he suffered from rather severe status attacks.

The essential gross postmortem findings were edema of the brain, thickening of the leptomeninges over the convexity of the brain, edema of the lungs, and congestion of the abdominal viscera. Microscopic examination of the brain revealed chronic meningo-encephalitis. The leptomeninges were thickened, infiltrated with inflammatory round cells and nests of ova of the species *Schistosoma japonicum*. Some of the ova were covered by multinucleated foreign body giant cells. Within the cortex and subcortical white substance were similar accumulations of *Schistosoma* ova enveloped by a mixed type of scar composed of reticular and collagenous connective tissue intermingled with fibrillary glia. Many of the ova were degenerated, their capsules

being collapsed, while others were calcified. There was a variety of regressive phenomena in the surrounding brain tissue, chief among which were: disappearance of nerve cells, proliferation of astrocytes, and focal areas of encephalomalacia. A section of the liver revealed chronic hepatitis with an increased amount of connective tissue in the portobiliary septa and many inflammatory round cells. Schistosoma ova were found in the liver.

The unusual feature of the disease is the infestation of the brain and its leptomeninx, for the adult worms customarily live in the radicles of the mesenteric veins, depositing their ova in the veins of the bowels. The occurrence of the *Schistosoma* ova in the brain and leptomeninges in isolated nests tends to support the view that adult worms gained entrance to the cerebral veins (probably through anastomotic channels between the mesenteric and spinal epidural veins) and deposited their ova in situ. It seems unlikely that the ova themselves were metastatic to the brain. This disease is of importance clinically for brain involvement may appear as a brain tumor or as an irritative convulsive disorder. 9 references. 3 figures.—*Author's abstract.*

Cerebral Disorders in Infants and Children in Djakarta. W. J. C. VERHAART. University of Indonesia, Djakarta. Documenta Neerlandica et Indonesica de Morbis et Tropica. *2*:289-91, Dec. 1950.

A survey was made of the infants and children seen with cerebral diseases by the Department of Pediatrics, Djakarta School of Medicine. Between 1931 and 1940, of these, 368 cases had been caused by meningitis, 180 were tuberculous, 63 pneumococcic, 45 influenzae bacilli, 13 meningococci, 27 purulent meningitis of unknown origin, 17 streptococcic and staphylococci, and a few of different origin.

In the remaining 1,037 cases the following diseases were found: epidemic encephalitis 2, cerebral malaria 13, clear-cut postinfectious encephalitis 26, syphilis 5, nuclear jaundice 9, birth injuries 13, lead encephalopathy 53, food deficiency 6, typhoid encephalopathy 17, encephalopathy in sepsis 23.

Encephalopathy from unknown causes, characterized by high fever and cerebral disturbances, had the highest incidence (318 cases). Autopsy usually revealed degeneration of ganglion cells and some proliferation of the vascular walls and glial cells. Seventeen cases could be re-examined at a later date; most patients were found to be incapacitated by sequelae; 158 died.

Encephalopathy after bacillary dysentery was found in 180 instances. The clinical and autopsy features resembled those of the previous group, the only difference being that dysentery bacilli were found in the stools; 142 died. Encephalopathy in pneumonia was observed in 152 patients, 116 of whom died. The affection was relatively frequent in early. Encephalopathy with enteritis and dyspepsia occurred in 82 and 86 cases, respectively, 68 and 76 patients dying. In most of these cases the symptoms were nonspecific: drowsiness, fever, convulsions, hemiplegia, tetraplegia, increased deep reflexes, in all possible combinations. No striking clinical differences were observed even between meningitis and cases of encephalopathy associated with serious infectious disease. 9 references.

INTRACRANIAL TUMORS

Tumours of the Brain, Occipital Lobe; Their Signs and Symptoms. DWIGHT PARKINSON, Rochester, Minn. Canad. M. A. J. *64*:111-13, Feb. 1951.

In 50 cases tumors of the occipital lobe were verified and analyzed as to signs and symptoms. Characteristically, the signs and symptoms of the tumors will indicate more anteriorly-placed lesions. With the exception of air studies, studies of the perimetric field are the most valuable single aid for localizing a lesion of the occipital lobe.

Considering congruity and macular sparing as being characteristic of defects of the occipital lobe field, the perimetric studies were successful in localizing the lesion in more than 70 per cent of the present series.

Nineteen patients had electroencephalograms; of these, 14 had cortical tumors and five had subcortical tumors. An exclusively occipital localization with delta waves existed in only 1 instance, a case of cortical tumor. In 7 other cases of cortical tumors, however, localization to an adjacent lobe occurred with spread to the occipital lobe. In nearly every case the alpha waves were suppressed on the side of the tumor.

Most brain tumors have extended beyond the small (50 cc.) occipital lobe before they attract medical attention.—*Author's abstract.*

Meningiomas with Dementia as the First and Presenting Feature. ERNEST SACHS, JR., National Hospital, London, England. J. Ment. Sc. *96*:998-1007, Oct. 1950.

The purpose of this paper is to call to the attention of neurologists, neurosurgeons, and psychiatrists a group of meningiomas with dementia as the earliest presenting symptom. Eight such cases are presented. The diagnosis in these cases is apt to be missed, especially if the patient is in the arteriosclerotic or presenile age group. This is equally true of other tumors. The practical significance of early diagnosis of meningiomas is that with the removal of the tumor the patient usually recovers from the mental illness. These 8 cases represent the approximate incidence (3.4 per cent) of this syndrome among 235 intracranial meningiomas.

The first patient was forgetful, confused, and incontinent, but was physically healthy. Neurologic examination was repeatedly negative, except for inconclusive signs. EEG and x-ray suggested an expanding lesion. Following removal of the meningioma her mental state returned to normal. The second patient showed only dementia and worry about losing her mental powers for several months before headache, papillo-edema and vomiting appeared. Meningioma was not diagnosed until autopsy. The third patient was confused, disoriented, and inaccessible, with inconclusive neurologic findings. Meningioma was found at autopsy. The fourth patient presented symptoms of dementia, confusion, disorientation, and inaccessibility. X-ray suggested meningioma, because of dilatation of one foramen spinosum. The fifth patient presented such gross dementia, deterioration, and childishness that his slight headaches and eostosis over the tumor at the vertex were not appreciated. Skull films suggested

meningioma. The sixth patient was so overwhelmingly demented, her anosmia from an olfactory groove meningioma was not appreciated. She showed only early papilloedema incontinence and a slight facial weakness. The EEG was helpful in showing an abnormality which was diffuse and nonfocal, whereas the x-ray was negative. The EEG and x-rays of the skull were helpful in the seventh case, one of deterioration in an elderly man. He also had anosmia from an olfactory groove meningioma, and he had an elevated spinal fluid protein. He made an excellent recovery after removal. The eighth case was one of slowly progressive dementia thought to be senility for a year before she developed headache, papillo-edema, incontinence, facial weakness, pyramidal tract signs and parietal lobe symptoms which helped make the diagnosis of tumor.

Dementia as the presenting or earliest symptom of meningioma has not been sufficiently emphasized. The triad of headache, vomiting, and papillo-edema thought to be the hallmark of brain tumor appears when the tumor is far advanced, wherein the risks of operation are greatest for the patient and the task for the surgeon most trying. So called "frontal incontinence" and "frontal tremor" are discussed. The diagnosis of the demented patient whose condition is due to a tumor can be established only by full investigation including a complete neurologic examination in conjunction with EEG, x-ray, and spinal fluid studies. In this way patients with curable mental and neoplastic diseases will be saved. 19 references. 1 table.—*Author's abstract.*

NEUROPATHOLOGY

Bilateral Symmetrical Necrosis of the Corpora Striata. W. A. HAWKE, AND W. L. DONAHUE. J. Nerv. & Ment. Dis. *113*:20-39, Jan. 1951.

The clinical and pathologic findings in a case of bilateral symmetric necrosis of the corpora striata are described. Five somewhat similar cases have been selected from the literature, and based on these few cases a tentative syndrome of the corpus striatum has been proposed.

Symmetric destruction of the corpora striata is believed to produce the following picture. It has appeared most commonly after a febrile illness of indefinite localization. In the early stages of the syndrome there is marked impairment of consciousness, usually coma, an absence of voluntary movements, and alterations in tone in the direction of either hypotonia or hypertonia. In those cases which survived the initial days of the illness, there remained an absence of voluntary movements of the trunk and extremities and absence of speech. Involuntary movements were present from time to time. Consciousness did not remain totally impaired since the individual responded when painfully stimulated and seemed to some degree to be cognizant of his environment.

The physiologic mechanisms underlying this syndrome are discussed. It is believed that the major reasons for the difference between this syndrome and the usual basal ganglial syndrome are the greater involvement of the corpora striata and the absence

of significant lesions elsewhere in the central nervous system.

The basal ganglia represent the reservoir of instinctual drives which control the newborn child and are the highest level of functioning in early infancy. As the infant grows older, the cerebral cortex gradually takes over the control of the basal ganglia. The basal ganglia are probably responsible for the simpler emotional responses of the infant and the lower animal—the cerebral cortex for the more calculated intellectual responses of the adult and the higher animal. The basal ganglia are more than structures whose function is solely motor through the extrapyramidal pathways, and where the basal ganglia are incapable of adequate function, the individual is capable of little more than a vegetative existence.

An intact corticostriospinal tract is as essential for voluntary movements as intact corticopyramidospinal or corticopontocerebellar tracts. An almost total interruption of this tract by symmetrical necrosis of the corpora striata renders the individual incapable of voluntary movements or speech.

The corpora striata do not appear to be the seat of consciousness, since consciousness was not lost with bilateral destruction of the corpora striata in the 2 cases that survived for several months. 10 references.

The Central Nervous System Changes Resulting from Increased Concentrations of Carbon Dioxide. W. M. STEPHENS, Chicago, Ill. J. Neuropath. & Clin. Neurol. *1*:88-97, Jan. 1951.

A histopathologic study is presented of the central nervous system changes in albino rats exposed acutely to a 20 to 43.2 per cent carbon dioxide air mixture (oxygen 18-21 per cent) until they died in 2 1/2 to 19 1/3 hours, and chronically to a nontoxic (6-10 per cent) carbon dioxide air mixture (oxygen 18-23 per cent), until sacrificed after 166 days. In both groups of rats the essential histopathologic alterations were confined to the nerve cells, with the greatest changes in the thalamus, brain stem, and spinal cord. All gradations of acute nerve cell changes were observed, from swelling, chromatolysis, and vaculoation of the cell body to its complete disintegration. Minimal changes were noted in the animals chronically exposed. Alterations in the neuroglia were increased in number and in staining reaction. Phagocytosis and neuronophagia varied according to the severity of the nerve cell changes in any locus. Blood vessel changes were dilatation and congestion in the acute animals. The findings were discussed in the light of physiologic changes reported in the literature as occurring in animals somewhat similarly exposed to carbon dioxide. Cellular anoxia was considered to be the underlying factor in their production, with the nerve cell changes being the result of certain physiologic conditions as the imbibition of fluid, a process occurring commonly in toxic conditions. The difference between the observed changes and those reported in the literature as seen in animals subjected to simple asphyxia and anemia was pointed out, and an explanation of the variation in the degree of cell change at different levels of the central nervous system was proposed. The minimal change in animals able to acclimatize to increased but nontoxic

amounts of carbon dioxide in the inspired air was discussed. The reversibility of the changes in general, with the possible irreversibility and complete destruction of the large motor cells where greatest cell damage occurred, was pointed out. 21 references. 5 figures.—*Author's abstract.*

Degeneration of the Primary and Secondary Sensory Neurones After Trigeminal Injection. JOHN PENMAN, AND MARION S. SMITH, London, England. J. Neurol., Neurosurg. & Psychiat. *13*:36-46, 1950.

In a patient suffering from the douloureux in whom death occurred three and a half months after successful alcohol injection of the right trigeminal nerve, a clinical and pathologic study was made. The injection of alcohol has resulted in very gross, probably irreversible degeneration of the nerve bundles in the sensory root. It appears also to have caused complete destruction of some ganglion cells adjacent to the pars triangularis; probably these were the only cells directly affected by the alcohol. On the whole, the changes in the neurones, their production of thickened processes, and any minor alterations in the peripheral divisions of the axons are probably of a secondary nature, resulting from damage to the central parts of the axis cylinders. The injection of alcohol was made into the pars triangularis rather nearer to the pars compacta than to the ganglion.

The destruction or damage of the fiber bundles in the sensory root has resulted in almost total degeneration of the nerve tract within the pons and throughout its course as the spinal tract. The degenerative changes of the secondary neurones in the main sensory nucleus and in the spinal nucleus, and of a large proportion of some fibers from these cells most probably indicate a trans-synaptic degeneration. After section of the sensory root (Spiller and Frazier, 1901; Sjöqvist, 1938), or section of the descending spinal tract (Erskine and Rowbotham, 1949), degeneration of the descending fibers of the primary neurones has been described; so far as we know, this is the first time that the secondary neurones of the trigeminal tract have been shown to undergo trans-synaptic degeneration, though its occurrence in certain other tracts has been proved.

The mesencephalic root is unaltered as would be expected, for the mesencephalic cells are the primary neurones (Carmichael and Woollard, 1933); any damage to their centrifugal fibers in the sensory root need therefore cause no permanent changes in these cells. Apart from these fibers and the very few others escaping unaffected at the time of injection, there is an irreversible loss of the intracerebral sensory part of the fifth nerve. Even if new centripetal fibers were to grow from the neurones of the ganglion, they would be unable to extend beyond the surface of the pons (Schäfer, 1913; Spielmeyer, 1922; Ramón y Cajal, 1928).

Summary.—The histologic changes after an alcoholic trigeminal injection are reported. They consisted of degeneration of nerve fibers in the sensory root and throughout the tract of the fifth cranial nerve.

Evidence is presented for a trans-synaptic degeneration in the main sensory and spinal nuclei. 18 references.—*Author's abstract.*

NEURORADIOLOGY See Contents for Related Articles

SYPHILIS OF THE NERVOUS SYSTEM

Tabes and Amyotrophic Lateral Sclerosis (Tabes et sclérose latérale amyotrophique). M. ROCH. Rev. méd. d.l. Suisse rom. *71*:178-80, March 1951.

In the case reported the patient was a woman 67 years of age who had contracted syphilis at the age of 22. After the age of 30 she developed typical symptoms of tabes; the cerebrospinal fluid showed a positive Wassermann reaction. Within the last two or three years the patient developed a bulbar paralysis interfering with mastication, swallowing, and phonation, as well as muscular fibrillation, which was extending to the upper extremities; the Babinski sign became positive. These latter symptoms are typical of amyotrophic lateral sclerosis. This case was first reported by the author in May 1950; and later in the year Alajouanine reported 2 similar cases in which typical symptoms of amyotrophic lateral sclerosis developed in a patient known to be syphilitic and with definite symptoms of tabes. Both of these patients were women, 55 and 66 years of age, respectively. These cases suggest various questions as to the relation between these two diseases and the role of syphilis in their causation. But these questions cannot be answered on the basis of so few cases. Such cases are evidently of very rare occurrence but should be reported whenever observed. 2 references.

High Cervical Chordotomy. Its Value in the Surgical Treatment of Pain (La cordotomie cervicale haute, son intéret dans la chirurgie de la douleur). J. GUILLAUME, AND G. MAZARS, Paris, France. Presse méd. *59*:162-64, Feb. 10, 1951.

An anterolateral chordotomy at the level of the first or second cervical segment interrupts the fibers that carry the sensory impulses of pain and temperature to the trunk and the extremities but does not interfere with any other sensory fibers or any motor fibers. The exact extent of the chordotomy is determined by sensory tests during the operation. When the indications for high cervical chordotomy are carefully determined and the operation is performed with meticulous technic, it has not been found to cause serious complications in most cases. In some cases where the patient's general condition is such as to increase the surgical risk, the indication for the operation must be carefully considered in relation to the severity of the pain and the patient's chances of survival. High cervical chordotomy relieves pain in the extremities and in the trunk, but not craniofacial and cervical pain, pain of thalamic origin, or that type of pain called "psychalgia." In patients with cancer the operation is not indicated when the growth is so far advanced, that maximum duration of life cannot exceed more than a few weeks. But in many cases of cancer pain may be severe after surgical removal or irradiation of the growth, or may be due to a metastases or a local recurrence, but the indications are that the patient may survive for a long time. In such cases high cervical chordotomy is the operation of choice for the relief of pain. In cases where the pain is bilateral, a bilateral anterolateral chordotomy may be done. This can be done in one stage, but if the patient's general condition is poor,

it can be done in two stages, operation being done first on the most painful side. High cervical chordotomy may also be done in cases in which the pain is the chief cause of the patient's infirmity, as in chronic painful hip due to osteoarthritis or congenital dislocation. The operation is also indicated in painful conditions of the extremities, such as pain in amputation stumps or neurinoma of a periphenal nerve trunk; in certain types of visceral pain; and in pain of medullary origin. 6 references. 1 figure.

A Neuro-Surgical Treatment of Parkinson's Disease by the Interrupting of the Ansa Lenticularis. (Traitement Neuro-Chirurgical de la Maladie de Parkinson par Interruption de l'anse Lenticulaire). F. FRANCOIS FENELON, Paris, France. Presse Med. 59:308-9, March 10, 1951.

The author wonders whether neurosurgery in Parkinson's disease could keep up definitively the improvement produced for a short time by such medication as scopolamine bromydrate.

He briefly recalls the central motor paths in man and criticizes the neurosurgical procedures dealing with the pyramidal system and the extrapyramidal areas as well. He considers that, since the Parkinson's syndrome is essentially pallidal, the cutting of the pallidofugal fibers should provide some improvement in this syndrome, and he suggests a technic of his own, which consists in the interrupting of the ansa lenticularis and its annex the pallidal fasciculus by using the shortest route, that is the temporal route, avoiding the obstacles of the region, and also the narrowest route, as evaluated by appropriate measurements.

The author reports 2 cases he has operated on with this technic and which are still improved after many weeks. He points out that: (1) this beneficial result seemed to confirm the theory of an excitation originating from the region underlying the pallidal lesion; (2) the way of approach he used has allowed the exclusive interruption of the ansa lenticularis to be achieved at a minimum; (3) this point was of particular interest from the therapeutic point of view, as proven by the amelioration in the condition of both patients.

Lysivane and Artane in the Treatment of Parkinsonism. O. GARAI, London, England. Lancet. *1*:429-32, Feb. 24, 1951.

A series of Parkinson's disease were used in assessing the relative merits of artane and lysivane. Of 43 cases who received lysivane, 24 were postencephalitics, 17 idiopathic, and 2 arteriosclerotic varieties of the disease. The results were as follows: 15 of the postencephalitics were improved, 7 unchanged, and 2 became worse; 14 of the idiopathic were benefited, 2 unchanged, and 1 became worse; both arteriosclerotic patients improved. Thus of 43 treated with lysivane, 31 were benefited to varying degree, 9 remained unchanged, while 3 became worse. Toxic symptoms occurred in 24; in 9 they necessitated cessation of the drug.

Artane was given to 51 patients. Of these, 31 were postencephalitics, 24 of whom were improved, 5 unaffected, and 2 became worse; 16 were idiopathic of whom 11

were improved and 5 unchanged. One arteriosclerotic derived great benefit; one was unaffected. Two patients suffering from other types of extrapyramidal disorder were symptomatically benefited. Of 51 cases treated with artane, 38 were helped, 11 were unchanged, and 2 became worse. Nineteen patients complained of side effects, but in only 3 did it become necessary to discontinue treatment.

Thus symptoms due to artane were less severe than those produced by lysivane. All patient relapsed on dummy tablets. It is concluded that both drugs control the rigidity better than the tremor. Both reduce the number and duration of oculogyric crises in the postencephalitic variety of the disease. Higher doses of artane than those reported by other workers were used, and in the postencephalitic groups intakes in excess of 50 mg. daily were well tolerated. In these cases its action is enhanced by amphetamine.

Of the two compounds artane is the less likely to produce unpleasant side effects and is thus likely to prove the drug of choice for most cases of Parkinson's disease. 6 references. 2 tables.—*Author's abstract.*

book reviews

THE CEREBRAL CORTEX OF MAN. Wilder Penfield, C.M.G., M.D., and Theodore Rasmussen, M.D. New York, The Macmillan Co., 1950. 248 pp. Price $6.50.

This study presents a summary and an analysis of data obtained in the course of approximately 400 craniotomies under local anesthesia performed on patients for the treatment of disease and accident. Following an historical introduction and a description of methods, the greater part of the book is concerned with the results of electrical stimulation of the cortex. Certain postoperative effects of ablations of parts of the cortex are briefly reviewed, and in the final chapter the more important findings are summarized and discussed with respect to the functions of the cortex and its relations with the diencephalon and mesencephalon. The observations are carefully documented with records from some 90 cases, for the most part including outline drawings of the cortical areas investigated and with the points indicated from which specific responses were obtained. The patients' descriptions of the sensations evoked by cortical stimulation and many of their amplifying comments are recorded *verbatim*. Although many of the cases have been previously reported (Penfield and Boldrey, 1937; Penfield and Erickson, 1941; Penfield and Steelman, 1947; and Rasmussen and Penfield, 1947) the complete material, including the more recent findings, has been analyzed in the present book.

Somatic representation in the sensorimotor strip on the two banks of the Rolandic fissure shows a very consistent sequence, though considerable variation in localization and extent. Sensation of the neck and back of the head is evoked from the postcentral gyrus between the trunk and shoulder areas. The eyes are represented as expected between the hand and the face areas, but rostral to the rest of the strip. Of considerable importance is the definition of a "supplementary motor area" anterior to the

sensorimotor strip on the median surface of the hemisphere, as well as the finding of a "second sensory" and possibly "second motor" area around the lower end of the sensorimotor strip. Paralysis of function during stimulation, particularly of speech, in three well defined areas (frontal, parietal, and temporal) is an important principle further elaborated in this work. Visual and auditory sensation from the primary projection and the immediately surrounding associated areas was similar, though hemianopsia was produced only by removal of the primary projection area. The chapters on the temporal lobe, from which memories, changes in sensory perception, dreams, etc. were evoked by stimulation in epileptic patients, and on the island of Reil, from which abdominal sensation and queer general feelings were evoked, open up a broad new field in psychophysiology. The findings require a new interpretation of our older concepts of cortical representation.

The Cerebral Cortex of Man is a clear and concise statement of an enormous experience. The presentation of the data is condensed and discussion is carefully limited to demonstrated findings. The illustrations are numerous and excellently reproduced. This work should be studied by all professions engaged in investigation of human behavior.—*David M. Rioch, M.D.*

DIAGNOSIS AND TREATMENT OF BRAIN TUMORS AND CARE OF THE NEUROSURGICAL PATIENT. Ernest Sachs, A.B., M.D. St. Louis, C. V. Mosby Co., 1949. 552 pp. Price $15.00.

The development of the specialty of neurologic surgery in the past forty years has been so extensive and rapid as to outstrip, surely, the imaginings of the founders of this division of neurology or general surgery (really, in combination). When Dr. Alfred Adson, now emeritus head of the department of neurologic surgery at the Mayo Clinic, was first deputized to undertake the local establishment of neurosurgery by Drs. Will and Charley, many years ago, he hesitated to intrude into a field already overcrowded by four neurologic surgeons—Cushing in Boston, Dandy in Baltimore, Sachs in St. Louis, and Naffziger in San Francisco. Now there are close to four hundred practitioners of this "splinter specialty" in the United States and many more abroad.

This is mentioned in the preamble because the chief attraction of Dr. Ernest Sachs' book, *Diagnosis and Treatment of Brain Tumors and Care of the Neurosurgical Patient* to this reviewer is the span of the life of the neurosurgical field which is delineated. In one volume, Dr. Sachs has crowded experiences encountered at all stages along the road, of particular value to today's neurosurgeons because of evaluation in retrospect. At this time, no one would tackle a brain tumor without advantage of all technical conveniences, including variable electrocautery, suction, artificial hemostatics, transfusable blood, and dehydrating agents. Antibiotics must be available in the postoperative period. Dr. Sachs and others of his early period undertook the surgical treatment of such expansile intracranial lesions without the benefit and insurance of such present-day armamentaria, and it is humbling and instructive to realize that immediate and long-term results were favorably comparable to those

obtained today. No one has yet surpassed Dr. Harvey Cushing's operative mortality or infection rate in a series of over 2,000 brain tumor operations, for example.

Dr. Sachs' book is illustrated with a great many pictures, well-drawn, and in detail. Many of them seem superfluous and unnecessary until one realizes that the neurosurgical house officer will be instructed most readily in essential technical details, which are often taken for granted, if he uses this volume as a handbook. Accurate methods of ventricular puncture, craniotomy wound closure, hematoma aspiration, and the like are depicted and can be relied upon. The passage of time and scientific advances have not eliminated the necessity of learning how to do and when to undertake these basic procedures.

Experience, gained personally, gives this work its *forte*. Experience is the test of theory and application, and without it speculation and instruction have no value. Although one may criticize the organization of Dr. Sachs' book and, in particular, a tendency to repetition, a thorough perusal cannot help but result in reliable indoctrination in neurosurgical fundamentals.

Case histories are interspersed in the text liberally. Nothing is more illustrative of a point of view in management of patients than specific example, and the examples chosen are engaging and worthy of memory.

Diagnosis and Treatment of Brain Tumors and Care of the Neurosurgical Patient should be in the library of every neurologic surgeon. Not only does it represent an era in the specialty, but observations and advices contained cannot help but be of value at any time. Dr. Sachs and his associates have seen and handled almost every possible neurosurgical contingency in his active lifetime, and the summaries included are important as the considered decisions of a long, active, pioneer, and eminently successful career.—*J. P. Murphy, M.D.*

CURRENT THERAPY 1951. Edited by Howard F. Conn, M.D. Philadelphia and London, W. B. Saunders Co., 1951. 699 pp. Price $10.00.

Current Therapy 1951 constitutes the third annual publication of the series by W. B. Saunders Co. under the capable editorial supervision of Howard F. Conn and a board of 12 outstanding consultants including M. Edward Davis, M.D., F.A.C.S., and Walter L. Palmer, M.D., F.A.C.P. of the University of Chicago Medical School; Vincent J. Derbes, M.D., F.A.C.P., of the University of Louisiana Medical School at Tulane; Hugh J. Jewett, M.D., and Perrin H. Long, M.D., F.R.C.P., of the Johns Hopkins University School of Medicine, Baltimore, and 7 other eminent specialists from medical schools throughout the United States.

The volume is a well bound 8 by 11 inch reference work devoted entirely to therapy of medical and surgical ills of the human body and includes most, if not all, of the ills we may fall heir to.

For convenience, the work is divided into 16 sections dealing respectively with (1) infectious diseases; (2) respiratory system; (3) cardiovascular system; (4) blood and spleen; (5) digestive system; (6) disorders of metabolism and nutrition; (7) endocrine system; (8) urogenital tract; (9) venereal diseases; (10) allergy; (11)

skin; (12) nervous system; (13) locomotor system; (14) obstetric and gynecologic conditions; (15) diseases due to physical and chemical agents; and (16) appendices and index.

Each individual contribution was written by its authors especially for this volume, the treatment of each individual disease is described in brief but complete manner by one (or where wide divergence exists in accepted modalities of treatment by more than one) contributor.

Each individual contribution was written by its authors especially for this volume, and in every case constitutes an up-to-the-time of publishing, practical, effective method of treatment currently in use in one of our better medical centers. Contributors were selected by the editors and board of consultant editors on the basis that each, in the field of his particular subject, is currently applying a method of treatment that is modern, effective, and generally applicable.

Enthusiasm for new and inadequately evaluated drugs or modalities is, in general, tempered with good judgment.

All in all, the work represents a valuable reference work in the library of any physician and fulfills a function as a readily available check-list of what is new and effective and reliable in the management of the multitudinous ailments we are all called on to treat.—*Otis R. Farley, M.D.*

IN DEFENSE OF MOTHERS. Leo Kanner. Springfield, Ill., Chas. C. Thomas, Publishers. $3.00.

Sprightly cartoons by Kurt Weise and comical chapter headings set the theme for this amusing little volume which seems designed to relieve the unnecessarily anxious mother and to titillate her more mature neighbors. The usefulness of an antidote to the overzealous "authorities" on child rearing is unquestionable. Kanner's performance as a humorist might justify the expansion of this essay to book length; however he is not content with his basic theme and develops a discordant counterpoint, a superficial but emotionally violent attack on psychoanalytic theory. In the chapter entitled, "The Great God Unconscious," he reaches a peak of satiric eloquence and takes his stand with those who wish that psychonalysis were only a passing fad.—*Edwin S. Kessler, M.D.*

NEUROTIC COUNTERFEIT—SEX: IMPOTENCE, FRIGIDITY, "MECHANICAL" AND PSEUDOSEXUALITY. Edmund Bergler. New York, Grane and Stratton, 1951. 360 pp. Price $5.50.

The title of this monograph is taken from the theme that sexually neurotic people unconsciously misuse their sex and that in such neurotics the sex activity is a caricature or counterfeit. Sexual abberations of impotence, frigidity, and homosexuality are described and discussed as manifestations of neurotic personality development. The text is based on psychoanalytic concepts of psychosexual development.

The material is not new nor does the book present any recent clinical advances. Rather, the author simply brought together in a popular fashion what he has pub-

lished previously. The argumentative and authoritative tone of the writing is enhanced by the frequent references to the author's other publications (including his next book). The curious and troubled public will probably be more interested than the professional in this book. However, psychiatrists and other serious students of personality may find the technical discussions of psychodynamics interspersed in the book quite valuable.—*Norman Taub, M.D.*

HYPNOTHERAPY OF WAR NEUROSES. A CLINICAL PSYCHOLOGIST'S CASEBOOK. John G. Watkins, Ph.D. New York, the Ronald Press Co., 1949. Price $5.00.

The recent war emphasized the need for methods of brief psychotherapy which could be directed to the individual patient. A renewed interest in hypnosis in the past decade made many advances in this problem possible. While the values of hypnotherapy are emphasized in this book, it has been stressed that hypnosis does not supplant other methods of treatment. Although a psychoanalytic approach or orientation is desirable and therapeutic skill indispensable, perhaps the greatest advantage of hypnosis in psychotherapy lies in the possibility that by its use, material unacceptable to the Ego can, within a short period of time, be examined, worked through, evaluated by therapist and patient, and then allowed to emerge into the patient's awareness in a fairly well controlled way.

The bulk of the text is devoted to the presentation of case reports. These are selected from the author's experience in dealing with neurotic soldiers assigned to a special treatment company at Welch Convalescent Hospital. These were generally patients with hysterical symptomatology precipitated by an incident of combat. The presenting symptoms were varied: aphonia, amnesia, stuttering, depression, phobia, tremor, paralysis, camptocormia, etc. All of these men were shortly to be separated from the military service, but many had prolonged disability which had proved refractory to other treatment methods. All were readily hypnotized and all were given dramatic symptomatic relief, although it is not possible to evaluate the permanency of the relief since most of the men were under the author's observation for only a few months at most. The value to be found in these reports, however, lies in the vivid illustration of hypnotherapeutic methods. From the point of view of the therapist, Dr. Watkins has kept in mind the following questions: "What words did he (the therapist) use (in interpretations made to the patient)? How did he use his voice? What was his general manner? Why did he choose to make the interpretation at this point? Why did he make it in this particular way? Afterwards, did he feel that this was the best way to have handled the point? If not, in what way did he think his technic could have been improved?" That the author had been able to include such details in the confines of some 400 pages without resorting to the use of small print is one of the remarkable features of this book.

The author has used a number of hypnotherapeutic technics. In addition to the usual direct suggestion, abreaction, age regression, etc., he has described in some detail the use of suggestion of dreams, implantation of conflicts, and various projective technics. Reintegration of uncovered material and development of insight

are stressed. The author also uses hypnosis for "adjusting" traumatic memories. His approach, however, is definitely "hypnoanalytic."

This book is a worth-while contribution to an increasingly important subject. It demands the attention of psychotherapists in general.—*George D. Weickhardt, M.D.*

FEELINGS AND EMOTIONS. Edited by Martin L. Reymert. New York, The Mooseheart Symposium, 1950. 505 pp. Price $6.50.

This symposium presented in anthological form attempts to review the extensive contemporary literature in the area of feeling and emotions. It contains a series of relatively brief articles which present a summary of specific viewpoints. Each phase of the complex subject is recognized and distributed among the ten sections, including: psychophysiologic approaches, psychologic approaches, reports on recent experiments, emotions and psychosomatics, emotions in the study of personality dynamics and clinical psychology, emotions in human development, emotions in social behavior and methodologic problems. It is apparent from the list of subheadings that the contributors embrace the scope of the social sciences. In this way, the modern attempt at interdisciplinary exchange of information and research is furthered. The emphasis is placed on the present-day investigations and theorizing as developed in the centers of psychologic thought throughout the world.

If one theme could be selected from this mass of creative work, it would involve the importance of considering the organism as a whole. The animal functions as a unit, even though this unit has many components which might be analyzed individually. The picture is not confined and focalized within the boundaries of the person's body. It encompasses the interactions of people and the resultant changes that occur in them and the world about them.

To point up this direction of demonstrating inter-relationships, there are articles in the volume which attempt to associate psychoanalytic concepts and physiologic factors, as well as seeing the sociologic and anthropologic implications of these psychiatric hypotheses. Even further, there is the reference to dialectic psychology which posits "man in conscious action who, changing the world about him, is in turn thereby changed." The volume clearly indicates that study in the area of emotions and feelings is becoming more and more concerned with a "social atom" concept rather than the individual in a vacuum.

The major criticism (and this is not confined to this anthology, but to all volumes which attempt to achieve a cross-section of such an all-embracing field) is that the brevity of the articles results in reduced meaningfulness and some distorted interpretations. It is virtually impossible to arrive at a clear presentation with the paucity of available space.—*Melvin E. Allerhand, M.A.*

THE SEXUAL PERVERSIONS AND ABNORMALITIES. A STUDY IN THE PSYCHOLOGY OF PARAPHILIA. Clifford Allan. Oxford University Press, 1949. 339 pp.

In the first chapter of this book an attempt is made to find parallels between the instinctive behavior of subhuman primates and certain human perversions, which

represent variations of phylogenetic forms.

In fact, mere infantile regression seems unsatifactory when taken as the unique solution of the problem. Therefore, a suggestion to look into the biologic sources is most valuable. This study makes clear the intricate influences working on human nature and mind in ages and countries of hypercultivated morbidity; it gives interesting outlooks on primitive civilizations (as far as sexual customs are concerned); and it relates facts of biographical and historical importance.

Among the many subjects approached is that of homosexuality. Here the psychoanalyst's point of view is biased through prejudice, but biology provides us with facts explaining the abnormal by the study of phylogenetic evolution, ontogenetic variations, as well as organic and hormonal disproportions.

Many other perversions treated by others, such as infant sexuality, analism, masochism, sadism, are not explained by the usual symbols of penis a.s.o., but by early faultive reactions or attachments. The germ of many of them is to be found in animal life (killing the male spider after cohabitation, postures and readiness to humility in female birds and mammals). Also, the vehicles of sex attraction (outward appearance, hair, shape, parts of body, smelling stuff, showy attitude, organs for hurting while exciting ("love-honns") represents basal instinct forms which in a depraved state may give rise to paraphilia, especially when morbid constitutions meet with juvenile trauma. The author's casuistry awakens much interest in this intricate matter.

In conclusion he gives a warning as to the ways of avoiding infantile traumata. These, however, are best prevented in healthy, religious families where children are protected from sophistication and where sexual outlet is given within the limits of love and responsibility.—*Prof. Dr. H. Urban.*

OUTSIDE READINGS IN PSYCHOLOGY. Eugene L. Hartley, Herbert G. Birch, and Ruth E. Hartley. New York, Thomas Y. Crowell, 1950. 875 pp. Price $2.75.

Standard textbooks, by their nature, fail to give college students a broad perspective of the field of psychology and related disciplines. New insights in all the areas of human behavior have been emerging at a very rapid pace. There is, thus, a need for collateral material to complement standard textbooks. This has been the basic objective of the authors of this book.

Contributions from leading authorities are included under the headings of Development, Nervous System and Behavior, Statistics, Perception, Sensation, Attention, Learning, Motivation, Emotion, Intelligence, Social Behavior, Personality and its Disorders, Work Efficiency and Vocational Guidance, etc.

To augment the effectiveness of the readings themselves, the following four features have been included: (1) headnotes for each selection to provide a set for the student, (2) brief biographic sketches of all contributors, (3) a table correlating the readings with several leading standard texts, and (4) an index in which the topics, as far as practicable, parallel those found in psychology texts.

Among the contributors are Lawrence K. Frank, David Wechsler, Karl Lashley, Gardner Murphy, Kurt Lewin, Alfred Adler, Sigmund and Anna Freud, Lawrence Kubie, Robert Woodworth, and other notable figures. They discuss topics that are of interest to all students of human behavior, such as the Fundamental Needs of Children, Intellectual Changes with Age, Coalescence of Neurology and Psychology, Psychoanalytic Contributions to Problems of Reading Disability, Mechanisms of Defense, How the Unconscious Works, Emotional Expression in Chinese Literature, Emotional Factors in Accidents, and many others.

In gathering together the thoughts of these foremost men on the diversities of human behavior, the authors have made a worthwhile contribution to academic psychology. The writings serve as a stimulant for further reading and study and above all—for thinking—the sine qua non of the student of human behavior. This writer was especially impressed by Alfred Adler's "Significance of Early Recollections." Individual psychology concerns itself with the life style of the individual. In this article Adler illustrates how early recollections give us hints and clues in finding the direction of a person's striving, values that he aims for, dangers that he avoids. And, although the article is too brief for an adequate understanding of Adler's psychology, it does send one off looking for additional information in this area. And so it is with many of the other writings in this collection. They are brief—at times superficial—but serve the purpose of directing one's quest for further knowledge.—*Carl Newman, M.A.*

COUNSELLING THE HANDICAPPED IN THE REHABILITATION PROCESS. Kenneth W. Hamilton. New York, 1950. 271 pp. Price $3.50.

Rehabilitation has been defined* as "restoration of the handicapped to the fullest physical, mental, social, vocational, and economic usefulness of which they are capable." In order to achieve this ambitious goal, co-ordinated and individualized services of various professional groups and of the community generally are requisite. Restoration of efficiency in a medical sense or in a social and vocational sense alone does not necessarily fulfill the requirements of rehabilitation. The handicapped individual must be understood as a unit with many interdependent needs which differ from those of any other handicapped individual even though the physical disability may seem to be the same. An "intolerant, hostile and baseless social attitude," still widely prevalent, is perhaps the greatest barrier to effective service.

This is the philosophy upon which Dr. Hamilton bases his recommendation that a relatively new professional person, the "rehabilitation counselor," be trained to co-ordinate the specialized services and to individualize them for each client. He must be a well trained person indeed: able to recognize the total handicap, to determine just which services are requisite for a given individual, and to see that they are carried out. He must have a basic knowledge of human behavior, the ability to maintain a counselling relationship, a knowledge of occupations and of the industrial, vocational, and welfare resources of his community. In addition he must

*Definition adopted by National Council on Rehabilitation.

be able to interpret and integrate reports from the various specialists who have contributed to the rehabilitation process. Only thus can the client be restored to maximum usefulness.

The question is where to find such a person. Dr. Hamilton, in this generally excellent presentation, makes several suggestions and rightly considers each incomplete. But, in this reviewer's opinion, Dr. Hamilton seems almost completely unaware of one professional group whose training is directed toward an understanding of the total individual, biologic and social functioning within a total environment. This is the clinical psychologist, who would, of course, if he were to aspire to be a rehabilitation counsellor, need to learn a great deal about community and industrial resources, about occupations and job structure. However, his understanding of the dynamics of human behavior should be invaluable.

In enumerating and synthesizing the various professional services which must be co-ordinated, Dr. Hamilton discusses the social worker, the physician of various specialties, including physical medicine, surgery, and psychiatry, the physical and occupational therapists, the nurse, the vocational advisor and counsellor, the educator and trainer. Also he mentions a "psychometrician" and devotes about six pages to discussing psychometrics, among which he includes intelligence, interest, aptitude, "attainment," and unexpectedly also personality tests—of the paper and pencil variety. He considers all these of mediocre value. Evidently he has never known what it is to have a good clinical psychologist (not a psychometrician) interpret these tests and add to them the wealth of understanding of ambitions, attitudes, general personality structure, and dynamics, which he contributes through skillful use of projective tests and other psychologic methods. Yet he considers understanding of the whole individual basic to success in rehabilitation.

Despite this very real weakness in his knowledge of available resources, Dr. Hamilton's book presents the problem of the handicapped in its varying aspects in a synthesized manner, challenging to anyone interested in developing human potentialities or in community problems.—*Margaret Ives, Ph.D.*

RORSCHACH: INTRODUCTORY MANUAL. George Ulett. St. Louis, C. V. Mosby Co., 1950. 44 pp.

This is a very short "primer for the clinical psychiatric worker," written "for the express purpose of bridging that troublesome abyss between psychiatry and clinical psychology." It is intended for those without extensive formal training in psychologic methods or familiarity with testing technics—is necessarily eclectic, simplified and dogmatic, as its author explains. Nevertheless the psychiatrist or "psychiatrically-minded physician" is expected to be able to use the Rorschach after studying this primer and to gain much valuable information and diagnostic insight even though he will not have time (nor skill) to administer or score it properly. A "handy chart" is provided which "permits almost immediate interpretation of personality trends and suggests clinical diagnosis."

It seems to this reviewer that this is a dangerous trend which would widen rather than bridge any interprofessional abyss. Proper mastery of Rorschach technic, as Dr. Ulett implies, is a task which takes years of training and practice, and which, for best results, presupposes basic understanding of psychologic methods. By analogy, would the physician, psychiatrist or not, wish to have presented in primer form some of the skills and technics which he has spent years in acquiring, so that after perusing the primer the clinical psychologist or anyone else without medical training could consider himself competent to use them, however inadequately? Is it necessary for all of us to acquire the skills of allied professions in order to bridge an abyss? Or should we perfect ourselves in our own skills, abilities, and technics in order that we may work together efficiently and win the respect of our colleagues in our own and other professions?

The original intent of an earlier edition of this manual was to use it as a teaching device, and as such it should prove useful if the learner is under the close supervision of an expert who will frequently remind him that such a brief epitome of a complicated procedure cannot be other than dogmatic and may in an individual case be extremely misleading. The charts and tables (especially the table of approximate percentages) can prove valuable even to the experienced Rorschacher as can the summarized presentation of accepted information about the administration, scoring, and interpretation of the test. But the Rorschach cannot be learned in five easy lessons, and material of this kind should never be placed in the hands of an unsupervised beginner whatever his professional background and no matter how skilled and competent he may be in his own field.—*Margaret Ives, Ph.D.*

BRAIN AND PERSONALITY. Paul Schilder. New York, International Universities Press, 1951. 136 pp. Price $2.50.

The material in this little book was originally presented by the late Dr. Schilder as two series of lectures. In 1931 these lectures were combined and published as a two part book. Part one is subtitled, "Studies in the Psychological Aspects of Cerebral Neuropathology" and part two, "The Relation Between the Personality and Motility of Schizophrenics." This book is now reissued under the same title as part of the republication of a series of Schilder's writings.

With much of Schilder's other work, this has been referred to as an effort to fill the gap between the organic and the functional. However, in many respects there is an artificial integration of anatomic and functional data. For example, he states that the id is connected with the phylogenetically older parts of the brain and, "The close connection between anxiety and sex is from the neurological point of view due to the common localization in the diencephalon" (p. 28). In some of his speculations, however, he approaches current views of psychosomatic relationships. The major emphasis in the book is on the life experiences of patients as illustrated by a wealth of clinical observations, largely discussed in psychoanalytic terms. Republication after twenty years is evidence that the book is not completely outmoded.—*Norman Taub, M.D.*

BOOKS RECEIVED FOR REVIEW

Le Problème de la Psychogenèse des Névroses et des Psychoses. L. BONNAFÉ, H. EY, S. FOLLIN, J. LACAN AND J. ROUART. Paris, Desclée de Brouwer et Lie, 1950. 216 pp.

Problems of Consciousness: Transactions of the First Conference, 1950. Edited by HAROLD A. ABRAMSON. New York, Josiah Macy, Jr., Foundation, 1951. 200 pp. Price $3.00.

Nerve Impulse: Transactions of the First Conference, 1950. Edited by DAVID NACHMANSON. New York, Josiah Macy, Jr., Foundation, 1951. 159 pp. Price $3.00.

Cybernetics: Transactions of the Sixth Conference, 1949. Edited by HEINZ VON FOERSTER. New York, osiah Macy, Jr., Foundation, 1950. 209 pp. Price $3.50.

Cybernetics: Transactions of the Seventh Conference, 1950. Edited by HEINZ VON FJERSTER. New York, Josiah Macy, Jr., Foundation, 1951. 249 pp. Price $3.50.

The Idea of Psychosomatic Medicine. CURT S. WACHTEL, M.D. New York, Froben Press, Inc., 1951. 239 pp. Price $5.00.

Die Konstitutionslehre von Carl Gustav Carus. GERHARD KLOOS. Basel, Switzerland, S. Karger, 1951. 112 pp. Price 8 Swiss francs.

notes and announcements

Dr. Percival Bailey has been appointed director of the Illinois Neuropsychiatric Institute in Chicago. In his new position, Dr. Bailey will be responsible for the operation of the Illinois Neuropsychiatric Institute, particularly in regard to professional matters, and also will advise and assist state mental hospitals and institutions of the State Department of Public Welfare in developing and carrying out research programs.

Dr. Bailey will continue to serve in his joint position as distinguished professor of neurology and neurological surgery at the University of Illinois College of Medicine and as research consultant for the Illinois state mental hospitals.

The QUARTERLY REVIEW is glad to welcome to the field of psychiatric publications a newcomer, *International Journal of Group Psychotherapy*, published by the International Universities Press of New York ($7.50 per year).

The first issue (Vol. I, No. 1) contains articles by such well-known workers in the field as Wender, Slavson, Powdermaker, Klapman, and Frank. The chairman of the editorial committee is Dr. Samuel B. Hadden, with several associates, all active in the field. The general subject is timely, the editorship competent, the format excellent.

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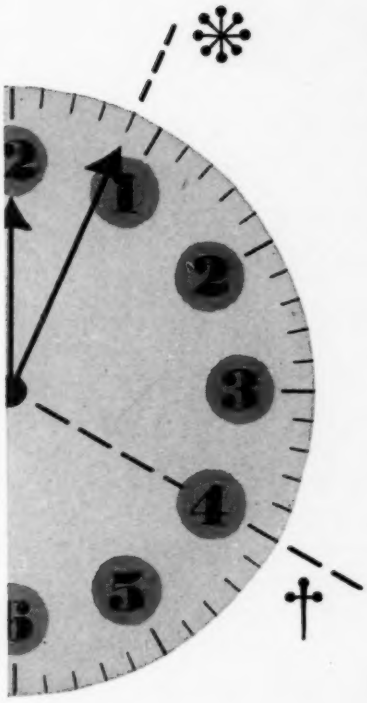

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